





THE UNIVERSITY  
OF ILLINOIS

LIBRARY  
720.5  
AR  
v.105

~~ARCHITECTURAL~~  
~~LIBRARY~~











# The ARCHITECT

A JOURNAL OF STRUCTURAL & DECORATIVE ART.

Proprietors:  
GILBERT WOOD & CO. LTD.

Editor:  
HERBERT W. WILLS, F.R.I.B.A.

Telephone: Holborn 4725.  
Telegrams: "Architonia, Fleet, London."

Registered as a Newspaper at the  
General Post Office.

Vol. CV. JANUARY to JUNE, 1921.

## INDEX.

### Articles.

Acoustics as Applied to Buildings, 252, 313  
Æsop's Fables, 12, 154  
Airship Sheds and their Erection, 304  
American Lawyer's Views of an Architect's Difficulties, 60  
Anderson, the late Sir Rowand, 404  
Architect's Assistant, The, 142  
Architects' Benevolent Society, 74, 92, 250, 331  
Architects' Fees on Housing Schemes, 417  
Architects' Welcome Club, Olympia, 318

#### ARCHITECTURAL ASSOCIATION:—

A Layman's View, 388  
Architecture in Commerce, 138  
Cricket Match *v.* Society of Architects, 429  
Modern Furniture, 67  
Nominations for House List, 211  
Rise of the Guild of Builders, 229  
Rural Cottages: Common Sense and Architecture, 311

Architectural Education, 360  
Architectural Heresies of a Painter, 380  
Architectural Impressions in the Engadine, 223  
Architecture and Travel, 344  
Architecture as Everyone's Concern, 328  
Architecture at the Royal Scottish Academy, 357  
Art News of To-day, 19, 50, 66, 81, 102, 123, 138, 155, 170, 189, 206, 222, 237, 262, 287, 310, 327, 342, 356, 373, 386, 400, 415, 427  
A.S.A.P.U. and Minimum Salaries, 103  
A.S.A.P.U. and Insurance Workers' Strike, 156

Belgian Cement Production, 12  
Belgian Phoenix, The, 184  
Berks, Bucks, and Oxon Architectural Association, 224, 422  
Birmingham Architectural Association, 10, 55, 72, 85, 140, 156, 202  
British Industries Fair, Birmingham, 148  
British School at Rome Scholarships, 141  
Building a House, 401  
Building Exhibition, Olympia, 246, 270, 295; Plan of Hall, 269; Stalls, 330  
Building Industries' Consultative Board and the Cost of Building, 55, 430  
Building Trades Parliament, 126

Caerphilly Council School, 372  
Capri and Amalfi—III., 159  
Case for Owners of Working-class Dwellings, 244  
City Churches, The Threatened, 210  
Competition News, 5, 55, 76, 107, 164, 177, 200, 204, 282, 290, 309, 327, 341, 358, 371, 390, 410, 417, 428

### Articles—continued.

#### CONCRETE INSTITUTE:—

Impermeability in Concrete, 216  
Lunch at Olympia, 295  
Science, Efficiency, and Progress *v.* Stereotyped Building Acts, 334  
Tests of Stone, 146

Contemporary British Architecture and its Immediate Ancestry, 207, 226  
Crosby Hall Settlement Scheme, 20

Departmental Destroyers, A Duet of the Day, 40  
Design of Advertisements, 292  
Destruction of Serbian Libraries, 90  
Devon and Exeter Architectural Society, 280

East Ham Hospital Competition, 204  
Economic Unit Principle Applied to Large Cities, 362, 420, 432  
Edinburgh Architectural Association, 85, 156, 241

Electric Light Fittings, 186  
Electric Lighting in Schools, 320  
Electric Lighting in Shops, 422  
English Forestry Association Trading Scheme, 336  
Expression of the War Memorial, 169  
Extensible Step-ladder, The "Zerlini," 164

Factory Lighting, 184  
Faults of Modern Architecture, 263  
Future Housing Policy, 291

Galvanised Iron Industry, 145  
German Constructional Steelwork, 306  
Gift of a Staircase to the Nation, 161  
Government Scheme for the Employment of Ex-Service Men in Building, 366  
Grants to Private Builders, 338  
Greater Chepstow, 256

Heating and Lighting, 363  
Hindrances to Sanitary Reform, 436  
Household Engineering, 30  
Housing Experiments at Walsall, 134  
Housing News, 16, 62, 78, 98, 132, 166, 186, 202, 234, 258, 282, 338, 410, 424

Imperial Building: What we may Learn from Rome, 110

Impermeability in Concrete, 216  
Industrial Council for the Building Industry, 126

Industrial Standardisation of Engineering and Allied Products, 363  
Inquiry into High Cost of Building, 55, 430

Institution of Civil Engineers, 304, 358  
Institution of Sanitary Engineers, 405, 436

Kelvin Medal Award, 88

Lay of Our Last Minister, 429  
Light Castings for Buildings, 232

### Articles—continued.

London Art Galleries, 3, 19, 50, 66, 81, 102, 123, 138, 155, 170, 189, 206, 222, 237, 262, 287, 310, 327, 342, 356, 373, 386, 400, 415, 427

L.C.C. Housing—Bellingham Estate, 22  
L.C.C.'s Housing Progress, 433  
L.C.C.'s Newer Schools, 261, 268  
London and Lancashire Insurance Co., Ltd., 322

London Electric Wire Co. and Smith's, Ltd., Works at Leyton, 6  
Manchester Society of Architects, 207, 226  
Memorials in Llandaff Cathedral, 57  
Ministry of Health and the Building Guilds, 11

Modern Craftsmen—II. Marcel Helsen, 416  
Modern System of Hot Water Supply, 166

Mosque of Kut-ud-Din at Delhi, 175  
National Federation of Building Trades Employers, 86  
National Wages Council Award, 352  
National War Memorial, Proposed, 341  
New, Edmund H., Pen Drawings of, 29  
New Catalogues, 78, 118, 382  
Northern Architectural Association, 156, 263

Notes from Ireland, 178

#### OBITUARY NOTICES:—

Anderson, Sir Rowand, 404  
Hare, Henry T., 47  
Pocock, Maurice, 433

Ordsall Hall, 65  
Painting at the Royal Academy, 326  
Plywood Door Panels, 98  
Pocock, the late Maurice, 433  
Possibilities in Brickwork, 156  
Post-War Churches, 391

#### PRAGUE:—

I. Palace-Fortress of Hradcany, 4  
II. Prague of the Middle Ages and of the Baroque, 25

Professorship and Public Recognition, 392

Progress in Building Working-class Houses in London, 433

Progress of Housing Schemes, 244, 306, 322

Protection of Iron with Paint, 364  
"Pruftol" and a Sprayer, 78

Qasr El'Aini Hospital Competition, 286  
Ravello—II., 70

Reading Society of Architects, 90, 302, 309

Rebuilding Valparaiso and San Francisco: A Contrast, 403

Retrospect and a Forecast, 12

Rome Scholarship Drawings at the R.A., 120, 128, 140

Rome Scholarship in Architecture: Henry Jarvis Studentship, 402

Royal Academy Ateliers, 173



## Articles—continued.

- ROYAL INSTITUTE OF BRITISH ARCHITECTS :  
 Conference at Liverpool, 387  
 Cottage Hospitals, 190  
 Council and Committees, 1921-22, 399  
 Cunard Building, Liverpool, 124  
 Design of Picture Theatres, 374  
 Destruction of Serbian Libraries, 90  
 Dynamic Symmetry in Ancient Architecture, 171  
 Examination Entrance Fees, 32  
 Land Settlement Building Work of the Ministry of Agriculture, 242  
 Mesopotamia Impressions, 171  
 Praeneste: A Study for its Restoration, 53  
 Presentation to Mr. John W. Simpson, 422  
 Presidential Address to Students, 82  
 Prize Drawings and Designs, 68, 84  
 Prizes and Studentships Awards, 55  
 Proceedings of the Council, 46, 69, 107, 140, 322, 350, 396  
 Prohibition of Building, 90  
 Public Lectures, 328, 344, 380, 391, 401, 418  
 Research on Building Materials, 283  
 Royal Gold Medal, 428  
 Unification and Registration Committee, 359  
 Royal Sanitary Institute Health Exhibition, 433  
 Rural Signposts, 193, 213  
 "Rycott" Draining Rack, 62  
 St. James's Square, No. 20, 434  
 St. John's Church, Werneth, 65  
 St. Mary Abchurch, 224  
 Science, Efficiency, and Progress v. Stereotyped Building Acts, 334  
 Scottish Building Guilds' Conference, 76  
 Sculpture at the Royal Academy, 343  
 Sedding, the late Edmund H., 174  
 Shrine at Sukkur Sinde, 238

## SOCIETY OF ARCHITECTS :—

- Acoustics as Applied to Buildings, 252, 313  
 Architectural Education, 360  
 Cricket Match against A.A., 429  
 Notes from the Minutes, 69  
 Royal Academy Ateliers, 173  
 The Society and the Building Exhibition, 154  
 Victory Scholarship Competition, 1920, 46  
 Some Fashions in Architecture, 418  
 South Wales Institute of Architects, 173, 218, 249  
 Spanish Cement Industry, 258  
 Standardisation in American House Construction, 406  
 State Housing, The Failure of, 51  
 Stratford-on-Avon in the Sixteenth Century—III., 108  
 Symbolism in Colour, 14  
 Thatch, 265, 346, 377  
 Theory of Beauty, A, 332  
 Tonkin Concrete Mixer, 96  
 Town Planning Institute, 42  
 Trade Notes, 98, 132, 202, 234, 258, 306, 322, 338, 352, 410, 433  
 Tylors (Water and Sanitary), Ltd., 145  
 Ulster Society of Architects, 140  
 University College Hospital Reconstruction Scheme, 182  
 Unpublished Book of Æsop, 12, 154  
 Wardour Street, No. 181, W., 65  
 Why Houses are Scarce and Dear, 405  
 Woodcote Public Utility Society, Ltd., 94  
 Zoning and Town Planning, 197

## Correspondence.

- "Architects and the Public They Serve," 118  
 Architects' Assistants' Salaries, 114, 129, 143, 162  
 Architects' Benevolent Society, 355  
 Architect's Pupil, The, 200  
 A.S.A.P.U. and the Insurance Workers' Strike, 56  
 Architectural Association and its Needs, 177, 200, 211

## Correspondence—continued.

- Architectural Students' Competitions, 116, 130, 145  
 "As Others See Us," 114  
 Assistant and Others, The, 143  
 British Industries Fair, 164  
 Building Contracts, 317  
 Building Trades' Incubus, 56  
 Chelsea Arts Ball, 10  
 Coal Shortage, 355  
 "Consuta" Plywood, 130  
 Corporation Profits Tax and Property-Owning Companies, 144  
 Cost of Building, 130  
 Cut or Moulded Brickwork, 228  
 Failure of State Housing, 116  
 Fall of a Plaster Ceiling, 130  
 Falling Prices, 317  
 Frewen Cavity Bricks, 317  
 Higher City Buildings, 291  
 "Ihane" System of Central Heating, 40  
 Industrial Paralysis, 396  
 Institution of Civil Engineers' Conference, 1921, 355  
 Leicester Corporation and Development, 10  
 Licensed House Competition, 228  
 Lord Kitchener Memorial, 10, 56  
 "Paint Now," 56  
 Question of Patent Rights, 291  
 Research on Building Materials, 376  
 St. George's Chapel, Windsor, 144  
 Taste in Architecture, 317  
 Telephone Ramp, The, 40  
 "Thatch," 430  
 Unification and Registration Committee, 414, 430  
 Ventilation in Picture Theatres, 162, 177  
 Working Men's Dwellings, Design of, 116

## Illustrations in Text.

- Acoustics of Buildings, 313-316  
 Alconbury Hill, Milestone, 213  
 Alverton, Old House, 346  
 Amalfi, 159, 160  
 Atrani, A Terrace at, 160  
 Auditorium, University of Illinois, 313  
 Belvoir Hunt, The, 309  
 "Betty's Grave," near Cirencester, 213  
 Blandford, 377  
 Brasenose College, Oxford, 30  
 Brewers' Company's Competition, 204, 212  
 Bridport War Memorial, 49  
 Broadway Hill, Worcestershire, The  
 Oldest Sign Post, 193  
 Building Exhibition, Olympia, Plan, 245, 294  
 Building Exhibition Stands, 330  
 Bulwark Village, 256  
 Burgh St. Peter Church, 378  
 Caerphilly Council School, 372, 376  
 Capitol, Porto Rico, 187  
 Capitol Theatre, New York, 316  
 Cartoons, 139, 207, 221, 311, 327, 389  
 Carved and Gilt Landscape Mirror, 416  
 Charles II. Mirror and Cabinet, 416  
 Chivelstone: A Rainy Day, 348  
 Christ Church, Oxford, 29  
 Church of Our Lady of a Hundred Gates at Paros, 151, 152  
 Crosby Hall, Chelsea, 20, 21  
 Design of Advertisements, 292  
 Diagram of Housing Proposal and Present Position, 51  
 Dole's Ash, 265  
 Dunston Pillar on Lincoln Heath, 195  
 Durgah of Altamash, 176  
 East Ham Hospital Competition, 229  
 Egyptian Hospital Competition, 259  
 Farm on Egdon, A, 346  
 Firehooks, 377  
 Foregate Street, Chester, 333  
 Gallops Homestead, 380  
 Gopuram, Gandirota, Ouddapah, 34  
 Great End, Scawfell, 387  
 Greenwich Fair, 38  
 Hammer War Memorial, 49  
 Hare, the late Henry T., 47  
 Hayes Barton, 378  
 Hexworthy, "Jolly Lane Cot," 350  
 Heywood Hall, Queen's County, Decorative Milestone, 214

## Illustrations in Text—continued.

- Hinton Admiral, The Cat and Fiddle Inn, 347  
 Hradcany, 4  
 Hradcany Castle, Room of Vladislav, 5  
 Hradcany, Cathedral of St. Vitus, 4  
 Ixworth Thorpe Church, 265  
 Kutb Minar, Delhi, 177  
 Little Theatre, New York, 316  
 L.C.C. Elementary School, Hackney, 268  
 L.C.C. Housing—Bellingham Estate, 22  
 London Electric Wire Co. & Smiths, Ltd., Works of, 6-9  
 Long Compton Lych Gate, 266  
 Lotus Capitals, Karle, 33  
 Louis XV. Library Table, 173  
 Lower Sackville Street, Dublin, 180  
 Lustleigh, South Devon, Old Cottage, 348  
 Markby Church, Lincolnshire, 266  
 Memorial Figure with Tablet, 58  
 Memorial Tablet, Church of the Holy Angels, Hoare Cross, 144  
 Memorial Tablet, St. Aldhelm's Church, Branksome, Bournemouth, 137  
 Memorial Window in Llandaff Cathedral, 57  
 Minrab of Durgah of Altamash, 176  
 Mosque of Kutb-ud-Din, 175-176  
 Old London Bridge, 38  
 Ordsall Hall, 65  
 Pakefield Church, 265  
 Penberth Cove, Cottage at, 346  
 Piddletown, 267  
 Porlock, The "Ship Inn," 347  
 PRAGUE :—  
 Church of Loretto, 26  
 Furstenberg Gardens, 26  
 Monument of John Huss, 27  
 National Theatre, 27  
 Old Town Hall, The, 25  
 Refectory at Skakov, 25  
 Rudolphinum (now Chamber of Deputies), 28  
 Thun Palace, 28  
 Proposed Eighteenth-Century Thames Bridge, 36  
 Queen Anne Casters, 416  
 Queen Anne Chair and Mirror, 416  
 Queen's College, Oxford, 29  
 RAVELLO :—  
 Entrance to, 70  
 Cloister of Villa Rufolo, 70  
 Panorama from the Villa Rufolo, 71  
 Reading, Proposed Post Office, 309  
 Rickards, Drawing by E. A., 101  
 Rome Scholarship Competition (Sculpture), 141  
 Rome Scholarship Drawings (Architecture), 120, 121  
 Roof Houses, 285  
 ROYAL ACADEMY SCULPTURE, 1921 :—  
 "Dawn," by W. Reid Dick, A.R.A., 350  
 "Margaret," Bronze Mask, by W. Reid Dick, A.R.A., 345  
 "The Past," by S. W. Ward Willis, 343  
 War Memorial, by W. Reid Dick, A.R.A., 343  
 Sackville Street, Dublin, 178  
 St. Mary Abchurch, 224, 225  
 Sections Showing Beams of Sound, 314  
 Shrine at Sukkur Sinde, 238, 239, 240  
 Siva Temples, Mamallapura, 33  
 Stoke-on-Trent Cemetery Chapels, 413  
 STRATFORD-ON-AVON :—  
 Holy Trinity Church, 109  
 Norwich Dragon, The, 108  
 Sanctuary Knock, 109  
 Sir Hugh Clopton's Bridge, 108  
 Sussex Iron Mile Post, 214  
 "Teapot Hall," 266  
 "Teddington Hands," Near Tewkesbury, 193  
 Tite Prize-winning Design, 89  
 Tomb of Sher Shah, 34  
 Tonkin Concrete Mixer, 96  
 War Memorial, A Suggestion for, 260  
 Welsh National Exhibition, Cardiff, View of Proposed Concert Hall, 385  
 West Wycombe, Eighteenth-Century Mile Post, 194  
 Woodcote Public Utility Society, Ltd., 88  
 Wroton, Seventeenth-Century Signpost, 260



## Leading Articles.

Architectural Assistant, The, 99, 119  
 Architecture at the Royal Academy, 323  
 "Art in Common Life," 219  
 As Others See Us, 79  
 Brewers' Company's Competition, 203  
 Bristol Ceremonies, The, 412  
 Church of Our Lady of the Hundred  
 Gates, Paros, 151  
 Egyptian Hospital Competition, 259  
 Hare, Henry T., 47  
 How Not to Decorate, 339  
 Incapacity in Office, 1  
 Life, Art and Enjoyment, 353  
 London Building Act, 383  
 Lutyens, Sir Edwin Landseer, R.A., 425  
 Montagu House, Old, 63  
 Notable American Building, A, 187  
 Painting at the Royal Academy, 326  
 Persecution of the Employer, 283  
 Present Chaos, 397  
 Reason versus Egotism, 307  
 Realities, 369  
 Rome Scholarship Drawings, 120  
 R.I.B.A. and Professional Politics, 135  
 Royal West of England Academy School  
 of Architecture, 411  
 "The Things which are Seen," 167  
 Vital Issue, The, 235  
 Year 1920, The, 17

## Legal.

Action against an Architect on the ground  
 of "Negligence," 80, 105  
 Architect's Claim for Fees, 196  
 Dispute about Architect's Fees, 431  
 Hal Williams v. Phillips Magnetos Co.,  
 196  
 Marsh v. Hider, 80, 105  
 Saunders v. Beadel, 359  
 Sharp v. Ekins, Son & Percival, Ltd., 431  
 Wandsworth Housing, Land for, 73

## Notes and Comments.

Amalgamated Housing Industries, Ltd.,  
 426  
 Anderson, the late Sir Rowand, 398  
 Angelica Kauffmann's Work, 122  
 Architects' and Surveyors' Assistants'  
 Professional Union, 80  
 Architectural Assistant, 153  
 Architectural Association Finance, 168,  
 354  
 Architects' Benevolent Society, 2, 236  
 Architect-Speculator, An, 236  
 "Art in Common Life," 205  
 Ban on a £100,000 Factory, 136  
 Broadway Reconstruction, A, 221  
 Building Guilds Again, 64, 80, 385  
 Building Guilds Contracts, 18, 49  
 Building Trade, The, 340  
 "Burlington Magazine," 414  
 Cancer Houses, 188  
 Central Heating, 205  
 Central Heating at Dundee, 122

## Notes and Comments—continued.

Chance for All, 325  
 "Chateaux en Afrique," 205  
 City Churches, The, 205  
 Coming Struggle, The, 153  
 Commercial Buildings, 154  
 Competitions, 413  
 Cox, The late E. Webster, 122  
 Destroyed Houses of France, 101  
 Destruction of Enterprise, 48  
 Development of Woking, 122  
 Dilution, 101, 168, 398  
 Director-General of Housing, The new,  
 308  
 Drawings of E. A. Rickards, 100  
 Dublin Custom House Fire, 384, 426  
 Duties of Architects, 80  
 End of the Quartier Latin, 414  
 Exaggerated Estimates of Housing Needs,  
 18  
 Expensive Forestry, 308  
 Ex-Service Men, 393  
 Federation of British Industries and Art,  
 370  
 Heresies of Mr. Roger Fry, 370, 384  
 Government Garden City, A, 122  
 Greater Cardiff, 399  
 Grosvenor Galleries, The "Nameless"  
 Exhibition, 354  
 Higher City Buildings, 260  
 H.A.C., The, 137  
 Housing and Dr. Addison, 64  
 Housing and Mr. Robert Smillie, 18  
 Housing and Town Planning Council's  
 "Weekly Record," 236, 370  
 Housing by the Office of Works, 168  
 Housing in Holland, 355  
 Housing Ethics and Finance, 399  
 Industrial Art and Museums, 220  
 Iniquitous Clause, An, 236  
 Inspection, 64  
 International College of Chromatics, 2  
 Joint Building Contract, 354  
 Keen's Letter, Mr. Arthur, 426  
 Labour Councils, 49  
 Libraries, 220  
 London Flats, 101  
 London in 1971, 325  
 London University Site, 136  
 "Luxury Buildings," 136, 260  
 Lynam, Work of the late Charles, 413  
 Manchester Building Guild, 18  
 Metropolitan Water Board and Fittings,  
 153  
 National Housing and Town Planning  
 Association, 221, 236  
 New Associates of the Royal Academy,  
 308  
 New Housing Policy, 308  
 New Minister of Health, 284  
 Norwich Cathedral, 260  
 Novel War Memorial, A, 260  
 Old Temple Bar, 188, 221  
 Organised Labour in Boston, U.S.A., 188  
 Painting and Unemployment, 49  
 Pocock, The late Maurice, 426  
 Port of London Authority's Building, 340  
 Public Lectures at the R.I.B.A., 308  
 Qasr El'Aini Hospital Competition, The,  
 286  
 Railways and Estates, 414  
 Reading Society of Architects' Protest,  
 308  
 Rebuilding of Mézières, 284  
 Reconstruction in Belgium, 354  
 Registrar-General's Explanation, 64  
 Restoration at the British Museum, 325  
 Rheims Cathedral, 220

## Notes and Comments—continued.

Richmond, The late Sir W. B., 121  
 Right of Artists, 371  
 Rome Scholarship Drawings, 100  
 Roof Houses, 284  
 R.A. Exhibition, 136  
 Royal Gold Medal, 80  
 R.I.B.A. President, The next, 284  
 R.I.B.A. Public Lectures, 308  
 Smokeless London, 371  
 Socialism and the Departments, 3  
 Subsidy to Private Builders, 236  
 Telephone Charges, The New, 18  
 Telephone Service, 153  
 Temple Bar and Admiral Meux, 188, 221  
 "The Studio," 371  
 Trade Unions, Dilution and ex-Service  
 Men, 2, 101, 153, 168, 398  
 Tradition, 205  
 Unification and Registration, 384, 393, 413  
 Villas in the Veneto, 188  
 Ways and Means, 426  
 Weekly Record of the Housing and  
 Town Planning Council, 236  
 Welsh International Exhibition, 385  
 Westminster Chimera, The, 340  
 Wisdom of the "Builder," 48

## Reviews.

Byzantine and Romanesque Architecture,  
 by Sir T. G. Jackson, Bart., R.A., 157  
 "Chester." A Sketch Book, by Joseph  
 Pike, 333  
 Church of Our Lady of the Hundred  
 Gates at Paros, by H. H. Jewell and  
 F. W. Hasluck, M.A., 151  
 Concrete Roads, 250  
 Design and Tradition, by Amor Fenn, 286  
 Drainage and Sanitation, by E. H. Blake,  
 250  
 Eighteenth Century in London, The, by  
 E. Beresford Chancellor, 36  
 Epstein, by Bernard Van Dieren, 333  
 Handbook of Indian Art, by E. B. Havell,  
 33  
 Highways and Byways of Northumbria,  
 by P. Anderson Graham, 158  
 How England is Meeting the Housing  
 Shortage, by Lawrence Veiller, Secre-  
 tary of the National Housing Associa-  
 tion, America, 79  
 Modern Painting.—I. The Work of Laura  
 and Harold Knight, 224  
 Modern Painting.—II. The Work of  
 P. A. de Laszlo, M.V.O., 361  
 Modern Painting.—III. The Work of  
 Arnesby Brown, R.A., 419  
 Old English Furniture and its Surround-  
 ings, by MacIver Percival, 11  
 Old Village Life, by P. H. Ditchfield,  
 M.A., F.S.A., Hon. A.R.I.B.A., 58  
 Reinforced Concrete, by W. Noble  
 Twelvetees, M.I.M.E., A.M.I.E.E.,  
 286  
 Solvency or Downfall, by Lord Rother-  
 mere, 397  
 Things Which are Seen, The, by A.  
 Trystan Edwards, M.A., A.R.I.B.A.,  
 167  
 Water Colours of W. Russell Flint,  
 R.W.S., R.S.W., 158  
 What to see in America, by Clifton  
 Johnson, 158



## INDEX OF ILLUSTRATIONS.

\*\* THE LITHOGRAPHIC ILLUSTRATIONS WILL BE FOUND OPPOSITE TO THE PAGES QUOTED.

ABERDEEN SCHOOL OF ARCHITECTURE :—  
 Design for a Library, by C. R. Gallie, 160  
 Design for a Library with Loggia, by W. J. Tayler, 160  
 All India War Memorial : Imperial Delhi, 332  
 All Saints', Plymouth, Parish Room and School, 176  
 Amsterdam, Hotel at the Dam, 354, 390  
 Austenwood Common Estate, Gerrard's Cross, Proposed Houses, 108, 160  
 Brewers' Company's Competition, 212  
 Bridport, Proposed War Memorial, 56  
 "Bridge Builders," 404  
 Buckingham Street, No. 1, Westminster, 241, 248  
 "Buildings Old and New," 404  
 Caerphilly Boys' and Girls' School, 372, 376  
 Cenotaph, Whitehall, working drawing, 32  
 Chester Sketches, 418  
 Church Work, by the late Charles Lynam, 413, 418  
 City and Port of London, 32  
 City of London Wards : Lime Street, Queenhithe, and Vintry, 88  
 Cottages at Sun Rising, Warwickshire, 418  
 Crosby Hall of Residence, Chelsea, 20, 32  
 Decoration of the Saloon, Cherkeley, Leatherhead, 376  
 Dunedin Cathedral, 176  
 East Ham Hospital Competition : Design placed first, 228, 229  
 Golders Green, Proposed War Memorial, 144  
 Hammer, Proposed Memorial Cross, 56

Hayle, Parish Building, 176  
 Haymarket, London, 228  
 Heatherden Hall, Iver Heath, 404  
 Iwerne Minster, Dorset, Memorial Cross, 56  
 Johannesburg Art Gallery, 432  
 Lanteglos-by-Fowey Parish Church after Restoration, 176  
 L.C.C. London Fields Elementary School, Hackney, 268, 272  
 L.C.C. Housing Scheme—Bellingham Estate, 22, 32  
 L.C.C. Recent School Developments, 261, 268, 272  
 London County Westminster and Parr's Bank, Ltd. : Head Office, Lothbury. Selected Design, 296, 316  
 London Electric Wire Co. and Smiths, Ltd., 6, 10  
 Lyssenthoek British Military Cemetery : Memorial Chapel, 332  
 Mariners' Church, St. Ives, 176  
 Memorial Tablets : St. John's, Peterborough; Melton Mowbray Church, Oundle, 144  
 Memorial to the London Troops, in front of the Royal Exchange, 56  
 Metropolitan Water Board Offices : Principal Entrance, 72  
 Mill Hill, Block of Four Small Houses, 248  
 National War Memorial and Campo Santo, Westminster Abbey, Proposed, 346  
 Notre-Dame, Paris, 228  
 Ordsall Hall, Lancashire, 65, 72  
 Oswestry Parish Church War Memorial, 136

Penshurst Church : Design for War Memorial, 144  
 Prague, 32  
 Premises for the Theosophical Society, Upper Woburn Place, W.C., 432  
 Private Swimming Bath, 332  
 Rome Scholarship Competition in Architecture, 128  
 St. John's Church, Werneth, Lancs, Altar, 72  
 St. John's, Walthamstow, Essex, New Parish Church, 346  
 Santa Barbara Mission, "The Forbidden Court," 196  
 "Shell Corner," Kingsway, W.C., 248  
 Sketches by the late E. A. Rickards, 108  
 Sketches of Chester, 418  
 South Crantock Church, The Screen, 176  
 Southampton War Memorial, 432  
 Spalding War Memorial, 432  
 Stands for Messrs. Siemens Bros. & Co., Ltd., at the Electrical Exhibition, 160  
 Thatched Buildings, 272, 346, 376  
 Tite Prize, The Winning Design, 88  
 Villa Emo, Fanzolo, Italy, 196  
 Wadham Lodge, New Pavilion Sports Ground, 196  
 War Memorial : Merton Churchyard Cross, Surrey, 88  
 Wardour Street, W., Proposed Rebuilding of No. 181, 72  
 Welsh International Exhibition, Cardiff, 385  
 Westgate, Louth, Terrace and Garden House, 241, 248  
 William, Herts, New Church, 404  
 Worshipful Company of Brewers' Competition : Designs for a Licensed House, 212

## ARCHITECTS AND ARTISTS.

Armstrong, Edward W., 128  
 Arthur, Eric R., 128  
 Atkinson, Robert, 332, 376  
 Blomfield, Sir Reginald, 332  
 Blount & Williamson, 212  
 Bodley & Hare, 137, 144  
 Brown, Benjamin C., 196  
 Clist, H. A., 139, 207, 221, 311, 327, 389  
 Crosbie, L. S., 241, 248  
 Curtis & Natusch and White & George, 212  
 Dawber, E. Guy, 418  
 Dick, W. Reid, 343, 345, 350  
 Downing, H. P. Burke, 88, 346  
 Eaton, William, 65, 72  
 Forrest, G. Topham, 32, 268, 272  
 Fry, Reginald, 285  
 George, Bernard, 128  
 Gibbons, J., & Son, 72  
 Glanfield, Ernest B., 72  
 Gregory, William J. H., 128

Hall, H. Austen, 72  
 Hallward, Reginald, 387  
 Harper, Charles G., 272, 346, 376  
 Hemm, Gordon, 418  
 Hett, L. Keir, 196  
 Higgins & Thomerson, 6, 10  
 Holt, Gordon H., 88-89  
 James, C. H., 212  
 Johnston, Miss Andrid B., 141  
 Jones, D. Pugh, 372, 376  
 Joubert, Felix, 57  
 Kaula, W., 160  
 Lanchester & Richards, 108  
 Lutyens, Sir Edwin L., 32, 332, 432  
 Lynam, The late Charles, 413, 418  
 MacDonald, J. Tim, 228  
 MacDonald, J. T., & Son, 248  
 Mansfield, Leslie, 404  
 Mason, Thomas, 260  
 Mennie & Smith, 228  
 Mewes & Davis, 296, 316, 362, 390

Miller, Bernard A., 128  
 Munnings, A. J., 309  
 New, Edmund H., 29, 32  
 Norman & Trehearne, 248  
 Oglesby, Robert P., 248  
 Pierce, S. Roland, 128  
 Pinchard, C. H. Biddulph, 20, 32  
 Rickards, E. A., The late, 101, 108  
 Riley, W., & Glanfield, 72  
 Ruthen, Sir Charles, 385  
 Scott, G. Gilbert, 49, 56, 144  
 Sedding, Edmund, The late, 174, 176  
 Tait, T. S., 108  
 Tenison, A. Heron Ryan, 404  
 Ward, Melville Seth, 404  
 Webb, Sir Aston, & Son, 56  
 Welch, Herbert A., 144  
 White, James H., 121  
 Willis, S. W. Ward, 343  
 Wills & Kaula, 108, 160  
 Woodward, Wm., & Sons, 346



## CONTENTS.

Incapacity in Office	PAGE 1	The London Electric Wire Co. and Smiths, Ltd. (with plans)	PAGE 6
Illustrations	2	Birmingham Architectural Association	10
Notes and Comments	2	Correspondence	10
"The Architect" Fifty Years Ago	3	The Ministry of Health and the Building Gilds	11
London Art Galleries	3	An Unpublished Book of Æsop	12
Prague.—I. (Illustrated)	4	Belgian Cement Production	12
Forthcoming Events	5	Symbolism in Colour—Ancient and Modern	14
Competition News	5		

### Incapacity in Office.

MR. STEPHEN EASTEN, of Newcastle, is one of the most experienced and respected contractors in the country, and, like many of his colleagues, has given his time and experience generously to help the authorities in carrying out their Housing operations. In common with other contractors, he has found it impossible to help those whom the gods surely wish to destroy, for are they not mad? It is charitable to suppose they are, for, failing this explanation of their actions, their policy is merely an attempt to gain political support by a system of practical bribery of the voter, which, we hope, is exceptional in the history of England.

Mr. Stephen Easten has resigned the position of Director of Production in Housing, and this is what he is reported as saying in the course of an interview:—

There has actually been a spirited contest between the Cabinet and the Ministry of Health as to which should offer the biggest bribe to Trade Unionism, and, so far as I am concerned, the last straw was the Ministry's adoption of the ill-advised, blundering, and wasteful scheme of gild subsidies. I agree with the gild system *per se*, for, after all, it merely means the co-operation of a number of workers in building houses, and who are able to obtain contracts in open competition with the private builder. I cannot, however, accept the idea of these gilds being subsidised to such an extent that they are able to drive ordinary building contractors out of the field. For instance, the employer's contract exacts a penalty if he exceeds his estimate, but allows him a small added profit if he works below it. The Gild contract guarantees the workers 5 per cent. profit even if its estimated cost be doubled in working, there being no penalty whatever. If the Gild saves £100 on a house it actually loses money. If the Gild estimates £1,000 and builds for that sum it makes £50, while if it saves, say, £200, it only receives £40 profit, and if the house costs £1,500 the Gild gets £75. That surely does not make for economy. Thus the employer's contract permits him 1½ per cent. for establishment charges, while the Gild contract allows 6 per cent., although it has practically no establishment charges to meet.

Another point is that the employer is not allowed to offer an inducement to workers other than the usual standard wage of the district, and must not pay for sickness or time lost through bad weather. A Gild contract permits payment for sickness and lost time, &c., which means that workers naturally flock to the Gilds wherever they can. The most serious aspect of the matter is that the Ministry of Health has instituted a system of whole-time payment which, in my opinion, may absolutely revolutionise the whole of our industries. The danger is that every other class of worker may clamour to be put on the same terms, so further handicapping British industry in competition with the foreigner. There is another instance of waste. The Government, in its offer to the building Unions as to the employment of ex-Service men, agrees to 50 per cent. payment for lost time, while the Ministry of Health actually offers 100 per cent.

Summing up, it is clear that employers who have pledged themselves to do everything possible to forward production of houses are penalised, while the building Trade Unions, which flatly declined to help in any way, are officially subsidised. The result must be that employers will be compelled to give their men all that the Gilds now offer, which obviously means a heavy increase in building costs. Be sure that the employers will fight for the right to live, whatever the Ministry of Health may do. To make matters worse, all this muddling and waste has been in the face of repeated cautions from the Ministry's own experts, whose advice to Dr. Addison has evidently fallen on deaf ears.

Surely no business man will waste time in giving advice which is thus persistently disregarded, or see decisions arrived at which cut at the very root of economy, without at least raising his voice in protest.

We quote the whole of the above remarks because they are specially emphatic when we consider that Mr. Easten represents, like Mr. Smethurst, the democratic and progressive section of the building trade. Like many of the men in the North, both Mr. Easten and Mr. Smethurst have taken a more radical view of the housing question than that which commends itself to us. Both of them are in sympathy with the legitimate demands of labour and trades unionism, and both could be relied on by those in authority to help them even when they could not entirely endorse their methods. Both are men who do not spare themselves in doing public work, the more onerous because of the many and important claims on their time, but they are driven into opposition by ill-fated disregard of justice of the Government and its departments.

Even now Mr. Easten, himself a great contractor, who has everything to lose by the success of the gild movement, applies no hard words to it. All he claims is that the gilds—as yet in an untried and experimental capacity—should not be given an unfair advantage over the contractor out of funds provided by the taxpayer, and we think he might have said a good deal more.

For only those who delight in word-spinning can really think that the so-called gilds, which are not gilds, except in name, are actuated by a desire to do public service when it is absolutely clear that their motive is a wish to divide the wholly imaginary windfall which they believe falls to the ordinary contractor in order that their members may secure better pay and conditions than fall to the workers employed by the contractor. This is a fallacy as self-evident to us as is that of the transmutation of the baser metals into gold, the search for perpetual motion; in a word, the whole series of delusions which occupied men in past ages.

When the fallacy is exploded—as it must be—by the test of trial, the gilds will be wound up, and the completion of their unfinished work handed over to the despised contractor. Meanwhile we feel, with Mr. Easten, the absolute injustice of subsidising the untried gilds at the expense of the contractor, in order, we suppose, to please an electorate largely composed of the working man.

We regard the proposal to pay the Trades Unions for consenting to the training of ex-Service men as a weak and shameless surrender to political pressure, and the proposals with regard to the payment of wet time in the building trades as a very dangerous and mischievous precedent.

We note that the Government is now urging the introduction of shorter hours in order to keep more men employed, an over-insidious and doubtful attempt to interfere with industry, but one which, fortunately for us, they cannot insist upon. They



have yet to learn that no Government can create trade, but by interfering with natural agencies and by meddling can do much to kill it.

The central fact is that if it pays an employer to work full hours it is absurd to ask him to cut down employment on the off-chance of helping to "make work go round," because part-time work is never as efficient as whole-time work, and every business in the country should be left free to deal with and settle its own problems. Mr. Tom Mann is already protesting against the suggestion that men should be paid less for shorter hours, and the effect of the Government proposal will very likely be to encourage a general demand for shorter hours at the same pay, which would be a further tax on industry, and would increase the prices we all complain of.

We have, in the past year at least, seen the

abolition of the Increment Duty, though this small concession comes late, is it too much to hope that the year 1921 will see the end of the Government Housing Scheme, the pruning of the activities of the Office of Works in respect to housing, and the restoration, as far as possible, of the *status quo* of years before the electorate heard of "rare and refreshing fruit" from politicians who now wish to double the salaries they were obliging enough to vote themselves without consulting the electorate. The country is tired of Super-men and Super-policies, and would heartily welcome a little justice and sound administration for a change.

We have just received a communication from the Ministry of Health in which a contradiction is given to the statements attributed to Mr. Stephen Easton (see p. 11).

## Illustrations.

THE LONDON ELECTRIC WIRE CO. AND SMITHS, LTD., CHURCH ROAD WORKS, LEYTON, E.  
HIGGINS & THOMERSON, Lic.R.I.B.A., Architects. (See pp. 6 to 9.)

## Notes and Comments.

### The International College of Chromatics.

WE are asked to give the following facts about the International College of Chromatics, whose headquarters are in 3 Finsbury Square, E.C. :—

The above College was founded in May 1916 in the interests of the science of colour, and it has no barriers of race or creed, colour touching life everywhere, on every side. The importance of colour from an educational point of view has, perchance, not been sufficiently considered. It is true that various important works have been written on colour, and the science has been included in some few school and college curricula, more especially in the United States of America; but until the founding of this College no systematic and world-wide attempt had been made to make Chromatics attractive to the student or to the cultured generally.

The work of the College is arranged as follows: There is a Lectureship Association, which seeks to interest the public in all parts of the world in the various aspects and applications of the science of colour by means of popular lectures.

Another department is called the Colour-Lessons Section. Some sixty lessons have been prepared on the principal colour subjects. They range over the fields of the solar spectrum, colour-vision, architecture, astronomy, heraldry, botany, colour-music, natural history, &c.

There is a Bureau of Colour Tests and Charts, the importance of which cannot be over-estimated, as colour-blindness is such a serious defect.

The therapeutic uses of colour are not overlooked by the College, for instruction is given in the science and art of colour-healing.

The whole subject of colour is a very fascinating one. Chromatics is, indeed, one of the most delightful as well as serviceable of the sciences.

Detailed information of the work of the College, in the form of leaflets and syllabuses of lectures, can be obtained from headquarters.

Colour is a very interesting subject, but we have doubts as to whether there is room for the study of colour as apart from design as far as architectural students are concerned, but we are gläd to bring the above account of the activities of the International College before our readers.

### The Architects' Benevolent Society.

THE Architects' Benevolent Society have issued the following appeal to members of the profession, which will, we hope, meet with a generous response:—

During the war the Council of the Architects' Benevolent Society were able to meet the many claims made upon the Society by acting in co-operation with the Architects' War Committee and other temporary organisations. This assist-

ance has now ceased, and the Society has to depend upon its inadequate resources and the generosity of the architectural profession.

During the last few years subscriptions have been falling off. During the present year, for instance, the annual subscriptions amount to less than £450, and these have been received from only 280 out of the many thousands of architects practising in the United Kingdom. At least five times this amount is required annually if the Council of the Society are successfully to carry on this very important work. You would be shocked at the really tragic cases of hardship which come before the Council at nearly every meeting, many of which can only be inadequately dealt with owing to lack of funds.

The increased cost of living has doubled the hardships of pensioners and deserving applicants. It has also caused an unprecedented drain on our scanty funds.

We, therefore, desire to remind you that the Society, which has been in existence for seventy years, is the *only* organisation in our profession established solely for the object of affording much-needed assistance to those in necessitous circumstances who have been engaged as architects or architects' assistants, and, where necessary, to their widows and children.

We require at least 1,000 additional annual subscriptions of £1 1s. each, and we earnestly appeal to you to allow us to include your name as an annual subscriber of this amount.

Subscriptions will be gratefully acknowledged officially, as well as in periodic lists in the Press, and we are confident that it is only necessary to call your attention to the needs of this Society to find a ready response.

We have little doubt that the appeal comes at an awkward time, as most architects are doubly hit by the increased cost of living, coupled with the fact that work is by no means plentiful, thanks to the financial burdens of the times, the attitude of labour, busily engaged in cutting its own throat by unjust demands, and incidentally damaging the body politic. We hope, notwithstanding, that the appeal now made will meet with the necessary response, and we might also urge that architects who have been absorbed into the swollen *personnel* of the Ministry of Health, the Office of Works, and other Government departments, which are interfering with the normal work of the profession, have a special reason to give generously to the relief of their less fortunate colleagues who have not found "soft jobs."

### The Trade Unions, Dilution, and ex-Service Men.

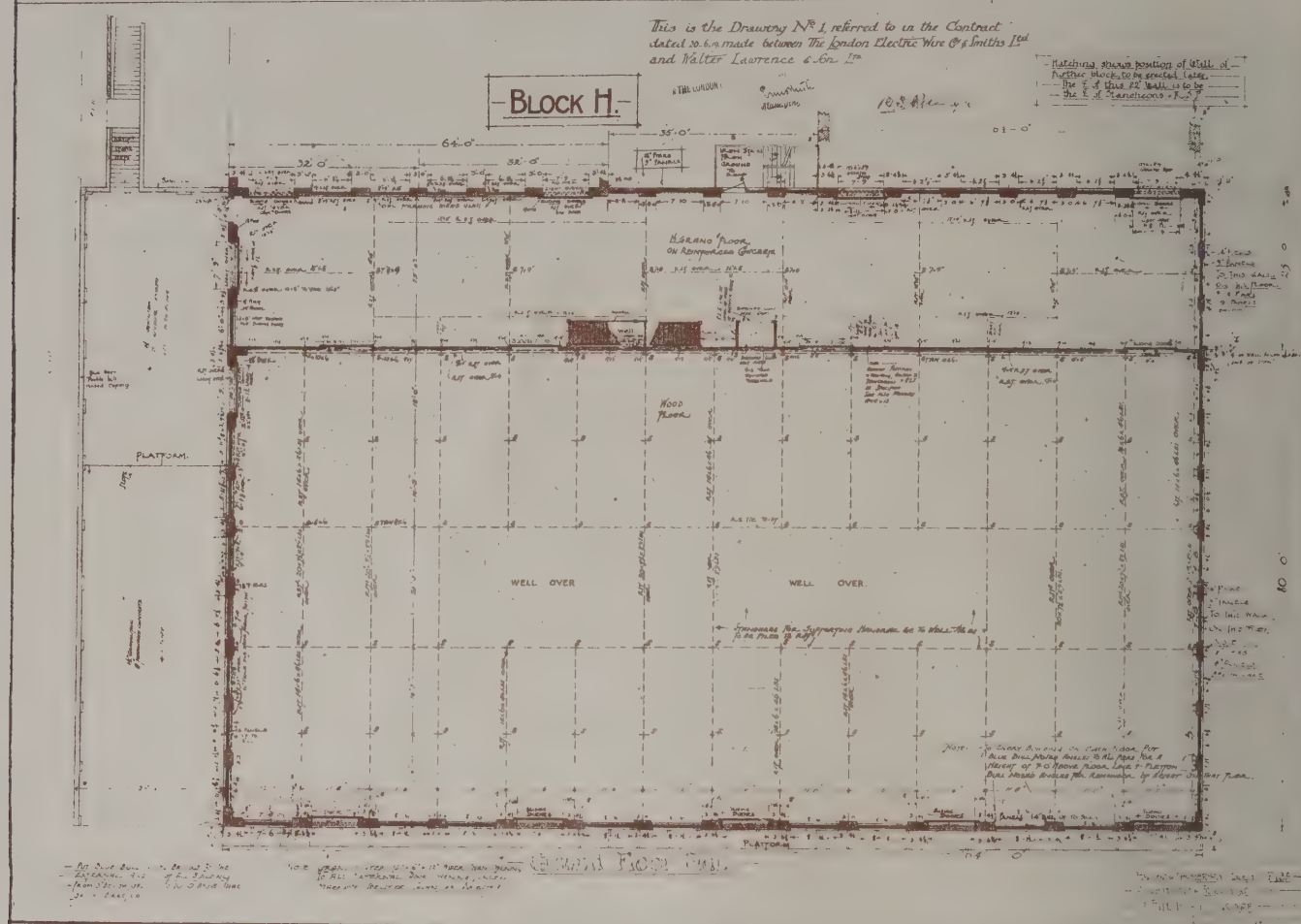
THE National Federation of Building Trades Operatives are, as far as we can gather, still hanging out for better terms, which we sincerely hope will not be offered to them. We greatly regret that the Government have gone







- Matching shows position of Wall of further block, to be erected later.
- The E of this 22' Wall is to be the E of Manicheon's R.S.



—THE LONDON ELECTRIC WIRE CO & SMITHS LTD—  
—CHURCH ROAD WORKS,—LEYTON, E.—  
—LAVATORY ACCOMMODATION—MENS—BLOCKS J,K&L—

DRAWING №3



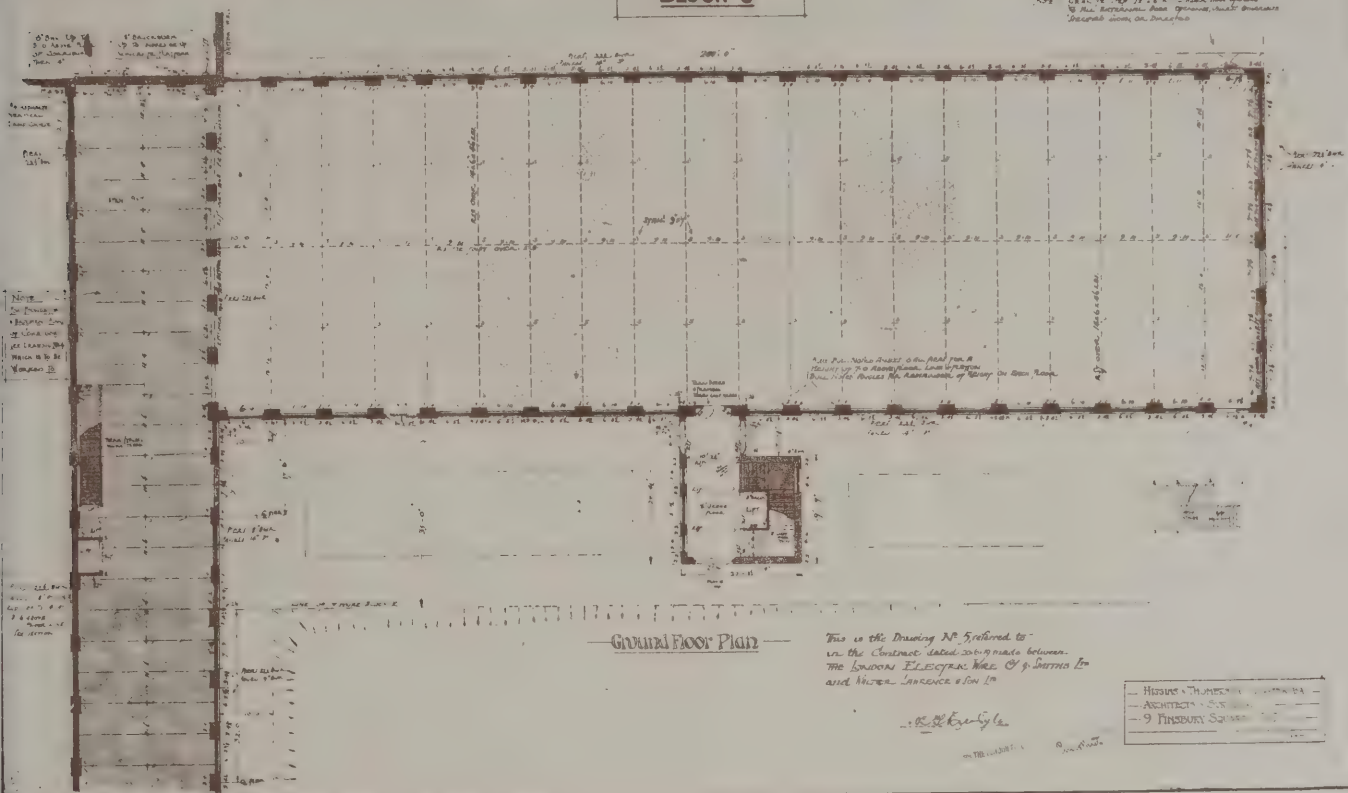
HIGGINS, J. THOMPSON



—THE LONDON ELECTRIC WIRE & S. SMITHS LTD.—  
—CHURCH ROAD WORKS, —LEYTON, E.—

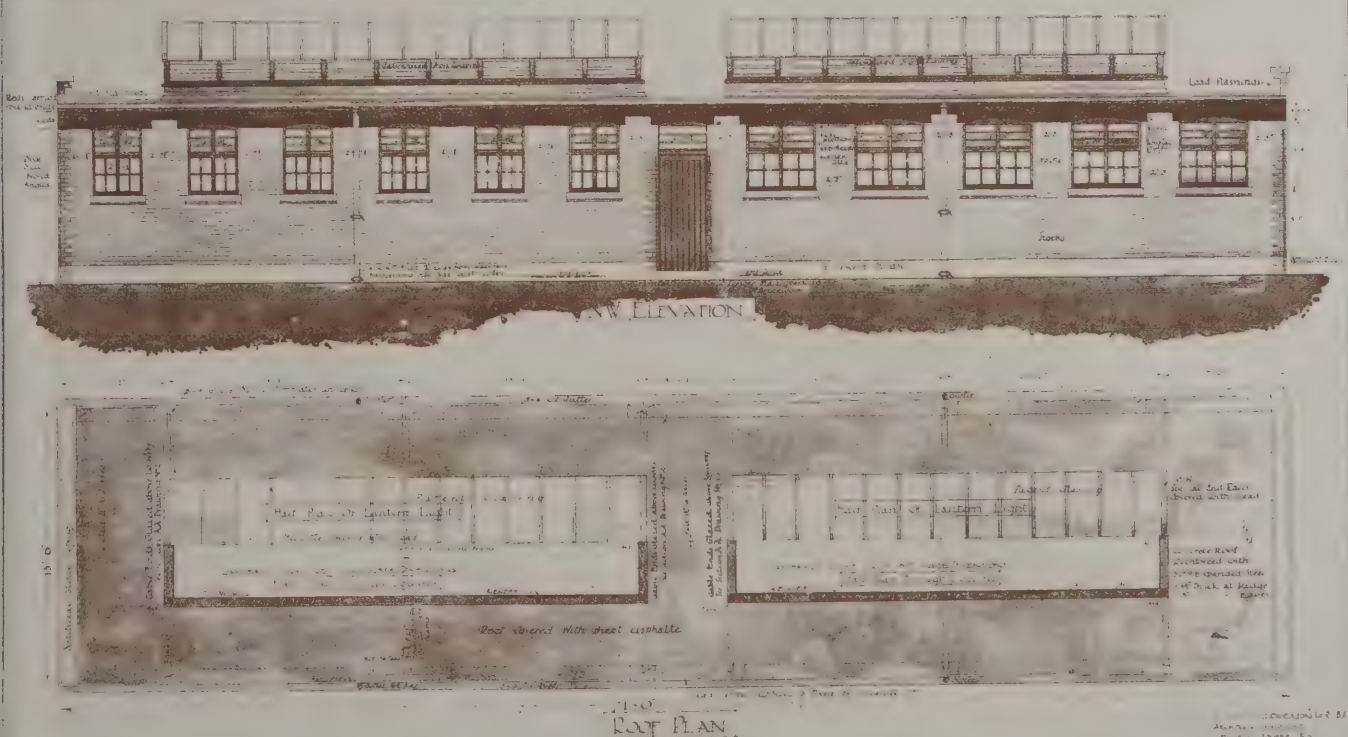
5

—BLOCK J—



—THE LONDON ELECTRIC WIRE & S. SMITHS LTD.—  
—CHURCH ROAD WORKS —LEYTON, E.—  
—LAVATORY ACCOMMODATION [WOMEN] BLOCKS H, J, & L—

DRAWING No. 5

















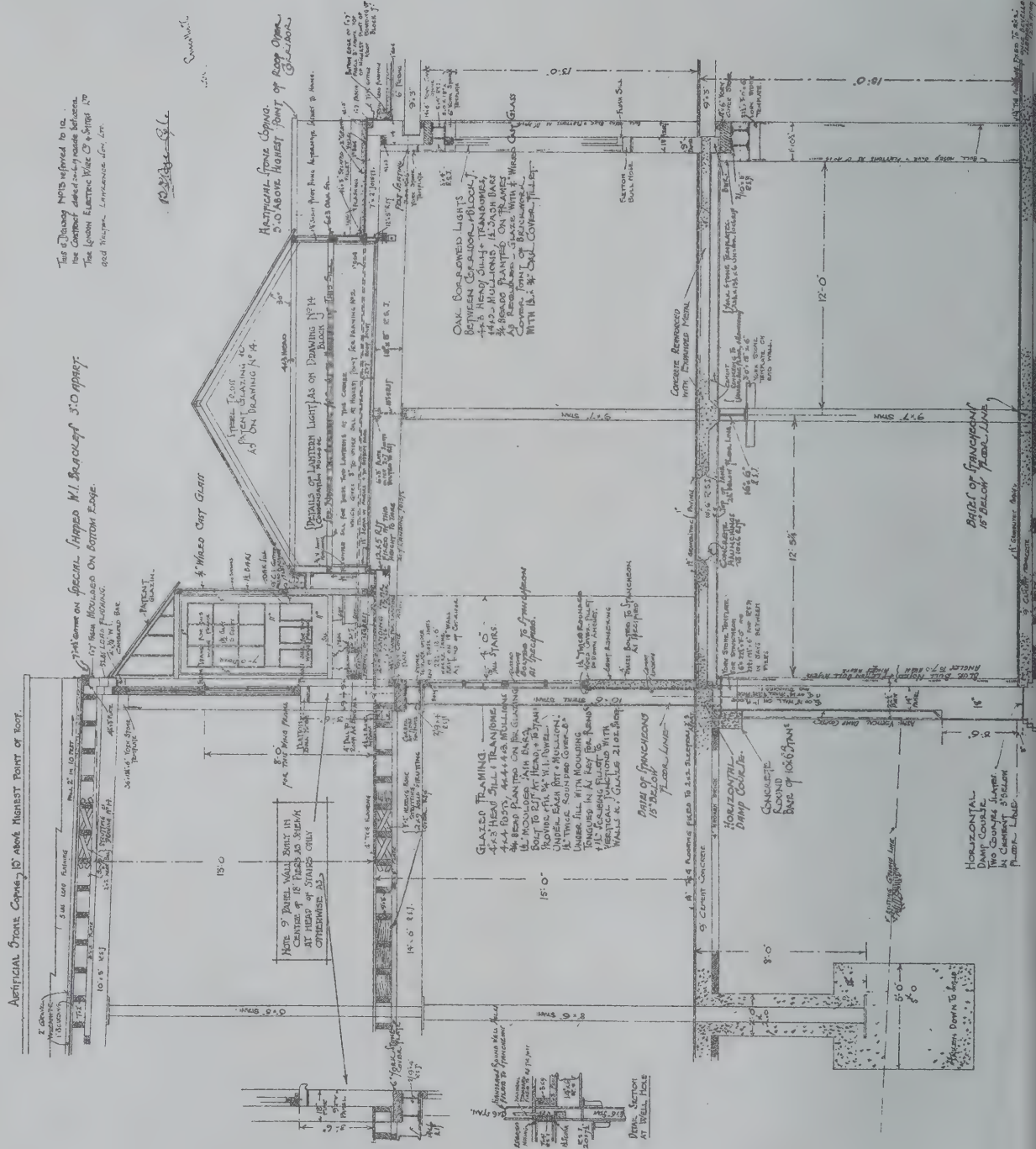




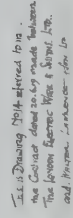
—THE LONDON ELECTRIC WIRE CO. & SMITHS. LONDON.  
—CHURCH ROAD WORKS — LEYTON — E.

Block H.  
& Corridor.~

№ 13







W. L. G. Cyle

Erwin  
Marlow







as far as they have, but as they have done so they must, we suppose, abide by their words. The firm words of the Premier with regard to the training of ex-Service men have been followed by actions which can only be described as an undignified surrender to unreasonable demands. A great lock-out in the building trades would be a very serious event, but like the drastic remedies given in extreme cases might well be followed by very beneficial results in the long run. The best remedy against unemployment is in the hands of the working men of the country, and may be described as the determination to give an honest equivalent for high wages. Until this is effected there will never be a return to good conditions, for no man at present can feel any certainty that conditions will make it possible to wisely invest money in great commercial enterprises which, among other things, involve building and development.

### Socialism and the Departments.

In a leading article of an unusually interesting character the "Daily Telegraph" reviews the failure of the Government's Housing Policy and the singular and one-sided encouragement it has given to the so-called Building Gilds, which more than anything else has led to the retirement of Mr. Easton from the position of Director of Housing Production. Our contemporary states that the strongest evidence exists that many of the Government Departments, and especially the newer ones, are largely staffed by Socialists and Fabians, whose aim is to destroy our existing industrial organisation in order to replace it by a new one of a Socialistic description, and that the unfair advantages and encouragement of the Building Gilds is a means whereby the Socialists hope to compass some of their ends. It further raises a strong and well-worded protest against such things being done with the protection and encouragement of the State. We believe that examination into facts would prove that a very large section of our housing enthusiasts are Socialists of a more or less pronounced type, some of them in addition having been pronounced Pacifists during the war, and that we could establish evidence of an almost continuous chain connecting Bolshevism and Anarchy at one end with Housing Reform at the other. We do not say that those who would like to see the establishment of better conditions are Bolsheviks in disguise, or may not be perfectly sincere, but we have a shrewd suspicion of benevolence which is always to be exercised at the expense of other people, while we are convinced that the reformer who preaches discontent has an easy and popular rôle.

## "The Architect" Fifty Years Ago.

JANUARY 7, 1871.

ONE purpose which THE ARCHITECT has of late especially cherished is that which the journalism of the day seeks so signally to maintain, in superadding to the bare chronicle of current intelligence the expression of intelligent opinion, —and this, not in the shape of individual views, but in that of loyal representations in the known direction of the general sentiment. Our motto has been—*Each for himself, and the Press for all*. This absence, rather than avoidance, of partisanship may in some measure have prevented the Journal from acquiring with some classes of occasional readers that credit which attaches to avowed sectarianism, of whatever sort; nevertheless, not only have we seen reason to trust to the common good sense for the perception of our higher motive, but, whenever occasion required, we have freely opened our columns, and that to contributors no less than to correspondents, for the advocacy of whatever differences of opinion could fairly claim attention. We have therefore in all cases of controversy possessed this advantage—that whoever complained of the incidental discouragement of his particular opinions in our pages had only himself to blame if the antidote were not duly supplied. In a word, THE ARCHITECT has professed no opinions for its own except those which are derived from the general body which it represents; and at the same time it has never been afraid to publish the opinions of any individual member of the body for the consideration of all. Less than this we hold to be disloyalty; more it seems impossible to offer.

## London Art Galleries.

(All Rights Reserved.)

At the close of the year and the start of a new one it is always interesting to look back on last year's record, and this applies as much to art exhibitions as to any other form of business activity. The London Galleries have on the whole a good year to look back at in the matter of exhibited work. The Leicester Galleries have, as usual, kept well to the front: the management here aims at the note of modernity, as they have shown in their successful display of the sculpture of Jacob Epstein, and yet keep in touch with several important societies, such as the Sennefelder Club, which opened on the same day in February as the Epstein show with some 150 lithographs.

Walker's Galleries had this autumn a more than usually well selected display of the older English masters in water colour; and followed this up with a very interesting collection of the water-colour work of Henry Bright, one of the latest painters of the "Norwich School." A most important exhibition, critically, was the remarkable display of portraits by Mr. Augustus John in the early part of the year, which confirmed the success of this artist's work in portraiture, and was fully noticed in these columns: the same Gallery showed later a remarkable set of paintings of the revolution in Russia. Both the Twenty-One Gallery and the Cork Street Gallery of Messrs. Bromhead and Cutts have given special attention this past year to modern etchings—the former with the work of Mr. F. L. Griggs, the latter, among others, with the etched work, exhibited in the same month of August, of Mr. W. C. Montgomery; at the same time both etching and lithography have been well shown at Colnaghi's Galleries, notably in the etched work of Forain and the lithographs of Mr. John Copley and of his wife. Lastly the recently closed exhibition at the Chenil Gallery of the newly formed Society of Wood-Engravers seems to promise the revival of an art which, though the earliest art of illustration, possesses still very high qualities of design.

After the Royal Academy itself the most important exhibition of the year at Burlington House has been the Exhibition of Spanish Paintings, Ancient and Modern, which opened in November last, and will, I am informed by the secretary, now close upon January 15. The older paintings, notably those of Velasquez, El Greco and Goya, have been a great attraction here; and the modern work, with which a certain number of pieces of sculpture were included, have given an idea of the tendencies, capacities, and thoroughly national character of the Spanish modern school. A few words here may be of interest on recent additions to the exhibition, which we noted very briefly last week. The religious procession painted by Goya is a remarkable work, finely composed, somewhat dark in tone and belonging, I imagine, to his middle period: the procession winds its way without the walls of some great city, whose roofs and spires resemble those of Madrid.

A very attractive work is "The Garden of the Poets," lent by Countess de Heeren, which now forms a pendant to the "Albercaourt in the Alhambra," also by Mariano Fortuny. In this poet's garden a young poet is seen reciting his composition, within some exquisite Italian garden, to a very critical group of elder men, probably members of one of the many literary "Academies" which flourished in Italy at the end of the eighteenth century. A beautiful young woman, elegantly robed in pearl-grey silk, apparently overcome with emotion, has swooned into the young poet's arms, who does not allow this incident to interrupt his recitation. The background, with antique statues and reliefs and climbing plants, is exquisitely finished. S.B.



## Prague.—I.—The Palace-Fortress of Hradcany.

By Selwyn Brinton, M.A.

(All Rights Reserved.)



HRADCANY.—VIEW FROM THE CITY WITH THE BRIDGE OF CHARLES IV. IN THE FOREGROUND.

THE glory of Old Prague, that which gives its individual charm to the old capital of Bohemia, is the old-time Royal Castle, the Palace-Fortress of Hradcany, which, like the Alhambra at Granada, dominates the city, and goes back to its earliest days. It is true that Prague possesses many other palaces, churches and towers of interest,—such as those grand towers which guard at either end the great bridge of Charles IV., covered, like the Ponte Sant'Angelo at Rome, with groups at intervals of baroque sculpture; such as the Powder Tower or Gate, the last survivor of the eight great gates to the city; such as the old Town Hall with its Gothic entrance, or the neighbouring Tyn Church, with its noble Gothic doorway, which became till 1621 the church of the "Utraquists."

But from all other parts of the city our eyes wander back to the grand old castle, the Kremlin of Prague, with which, I think appropriately, I commence my account of the architecture of Old Prague. For here was the seat of the Premysl and later dynasties, and this Royal Castle still expresses the idea of the Bohemian State. Neglected during the later years of the Kaiser Francis-Joseph it is now being put thoroughly in order as the residence of the President of the new Republic. Some idea of the extent of this old palace may be given by the mere statement that it contains 711 apartments, several of which are vast halls, such as the gigantic Vladislav Hall, in which tournaments used to be held, and the still grander Spanish Hall, 48 metres long by 24 metres wide, a great State reception room, whose effect is superb.

Already in the ninth century the Castle existed under Prince Borisvoj, and its fortifications were strengthened by Wenceslaus I. and Ottokar II.; but it was to the greatest ruler of Bohemia, Charles IV., that it owed its completion. Charles was the son of that romantic knight-errant monarch, King John of Bohemia, who ended his career by a brave but useless charge against our English Knights under the Black Prince at Crécy. Edward III. of England honoured the blind King's heroism, and appreciated the high qualities of his son, standing aside when this latter advanced his claim to be Emperor of the Romans; and the accession of Charles IV. to the throne of Bohemia, as Count Lützow points out, "marks the beginning of a new period in the history of the country."

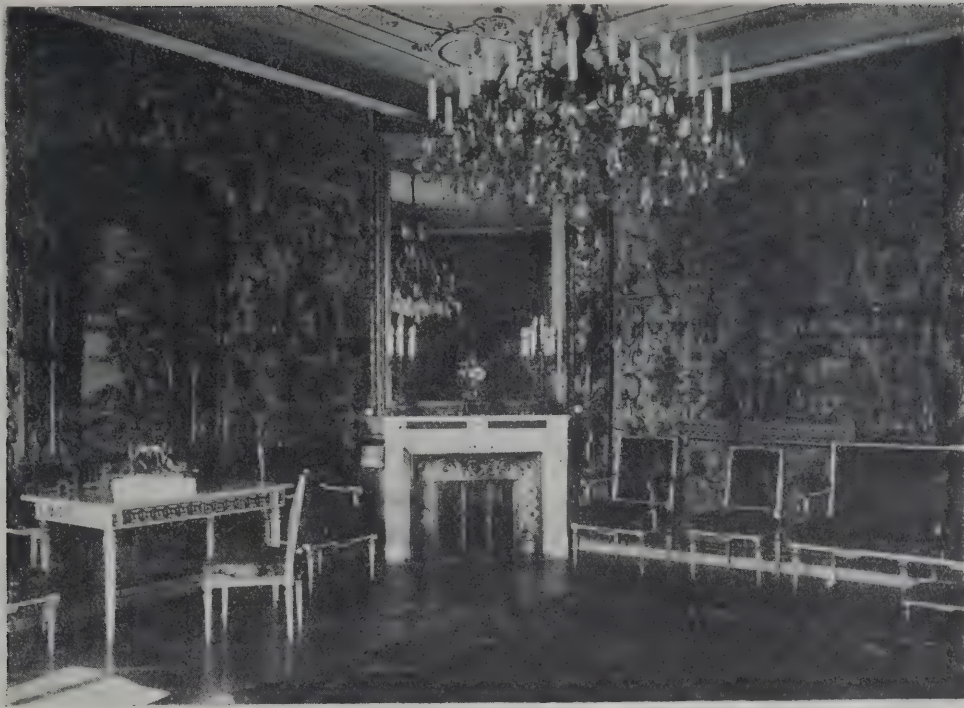
It was in this monarch's reign that some of the finest monuments of mediæval architecture which still remain at Prague came into existence. When Charles IV. arrived in Prague he had found the Royal Castle of

Hradcany, as he himself noted, "deserted, ruined, almost levelled to the ground." He at once decided to rebuild the Castle, fortifying it very strongly in the direction of Malá Strana, where the steep approach still shows evidence of his fortifications. To this great ruler was also due the magnificent bridge, still called by his name, which I have mentioned, with its grand guarding towers at either end, though of course the statuary which adorns it belongs to a later epoch, that of the early eighteenth century. To form some idea of the extent of the Hradcany itself I may mention that besides the vast palace the enclosure contained a cathedral, several churches, a monastery, besides the walls and great flanking towers at the angles which were at the same time both fortresses and prisons. I was told by the architect-in-charge of the restoration works, who kindly placed his services at my disposal, that there were twenty-two of these towers in the old time, of which



HRADCANY.—CATHEDRAL OF ST. VITUS.





HRADCANY CASTLE: THE ROOM OF VLADISLAS.

four are still remaining: the prisons, into which their ill-fated occupants seem to have been introduced by a hole in the floor, are among the most frightful I have ever seen, not excepting those of the Castello Rosso at Ferrara and the Castel Sant'Angelo at Rome.

The oldest church upon Hradcany is that of S. George, which is Romanesque in style, and goes back to the tenth century. The Cathedral, dedicated to St. Vitus, is Gothic, its foundations having been laid by King Charles IV. in the middle of the fourteenth century. It is a noble structure, the lofty vaulting being especially fine, but has suffered terribly in those religious wars which were the bane of Bohemia, and one-half of the building practically ceased to exist. This is now being restored, the funds having been, as I understand, provided entirely by public subscription without aid from the Imperial Treasury. The work is now well advanced, and I was able to examine it in detail with the architect-in-charge, going on to the roof, from which a marvellous view of the city is obtained. When it is completed the temporary wall now existing in the centre will be removed, and the full vista of this magnificent Gothic building will be unimpeded.

The existing interior in the principal nave is very rich in monuments,—notably in the shrine of S. John Nepomuk with its silver figures of saints and angels, weighing 3,700 lb., which I shall return to when speaking later of the baroque art of Prague; the tomb of Charles IV., with his wives and successors, and the famous chapel of St. Wenceslas, divided from the main building by a heavy door, with a bronze lion's head which tradition relates that the Saint took hold of when he was being martyred in the year 935. Incidentally I may remark that it was a satisfaction to come back to Saints one had long known by name, such as S. Vitus, whose method of martyrdom brought, I believe, his name into modern medical science, and S. Wenceslaus, whom I had hitherto associated with a delightful Christmas carol. S. George, too, seems to have been cherished in Prague; for, as I have mentioned, the earliest surviving church on Hradcany is dedicated to him, and his mounted figure, triumphant over the dragon, faces the entrance of the Palace; while the street leads with a slight gradient to the Loebkowitz Palace, which forms part of the fortified hill adjacent to the Black Tower, and which I was permitted by the kindness of the Prince to visit, and to admire his fine tapestries and wonderful library.

When we had finished sight-seeing it was delightful to go out on the rampart, as I did with the courteous

administrator of the Castle, and see the old city stretching at our feet, with the blue-green cupola of S. Nicholas in the foreground. This church belongs to the baroque city, which I reserve for a special notice, as the beautiful Casino of the Belvedere, built in 1539-60 for Ferdinand I. by the Italians de Spatio and Paolo della Stella, does to the preceding Renaissance, of which it is one of the purest specimens. But it is within Hradcany that the old historic life of Prague, with its racial problems and intense religious feuds, seems to centre: it is there that the old spirit comes near to us, and from this starting-point I propose to approach the mediæval city.

(To be continued.)

## Competition News.

Competitive designs are invited for a war memorial to be placed within the main vestibule of the High School of Glasgow. The competition is confined to former pupils of the High School of Glasgow, and will be conducted under the R.I.B.A. regulations for architectural competitions. Mr. John Keppie, F.R.I.B.A., Glasgow, has consented to act as assessor, and further particulars may be obtained from him or from the Hon. Secretary, Mr. Hugh R. Buchanan, of 172 Vincent Street, Glasgow, to whom names of intending competitors should be sent before January 31.

## Forthcoming Events.

*Friday, January 7.*—Town Planning Institute.—Meeting at 92 Victoria Street, Westminster, S.W.1. Paper by Mr. Raymond Unwin, F.R.I.B.A. (Past-President), entitled "Distribution." 6 P.M.

*Monday, January 10.*—Bristol Society of Architects.—Paper by Mr. C. F. W. Denning, F.R.I.B.A., R.W.A., entitled "What to Sketch and Why."

Surveyors Institution.—Meeting at 12 Great George Street, Westminster, S.W. Paper by Mr. W. W. Jenkins, F.S.I., entitled "The Streets of London before the Great Fire." 8 P.M.

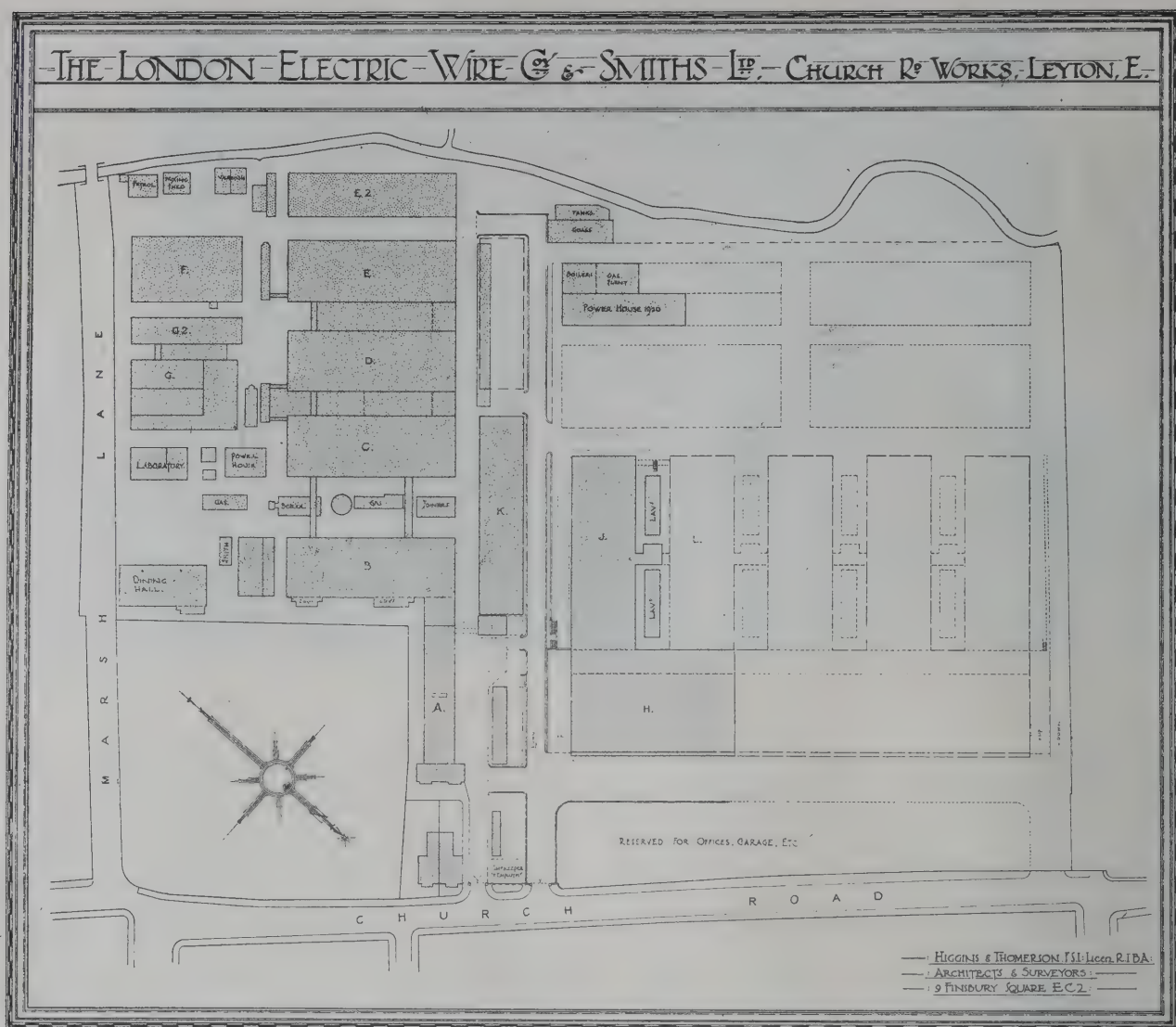
*Tuesday, January 11.*—Liverpool Architectural Society.—Meeting at 13 Harrington Street. Paper by Mr. Nathaniel Lloyd, O.B.E., entitled "Examples—Where, When, and How." 6 P.M.

*Thursday, January 13.*—Society of Architects.—Annual General Meeting, at 28 Bedford Square, W.C. Exhibition of Victory Scholarship Drawings and Presentation of Awards. 8 P.M.

Concrete Institute.—Meeting at 296 Vauxhall Bridge Road, Westminster, S.W. 1. Paper by Mr. H. Kempton Dyson entitled "Tests on High Tensile Steels." 7.30 P.M.

*Friday, January 14.*—London Society.—Meeting at 18 John Street, Adelphi, W.C.—Paper by Mr. Cumberland Clark entitled "Dickens's London." 4.30 P.M.





THERE are two branches of this company, which was formed by the amalgamation of interests in 1909 between the London Electric Wire Company, Limited, of London, and the Salford undertaking of Frederick Smith & Co., Ltd., of Salford and Halifax.

The London branch of the company was established in London in 1879 as a private company, and incorporated in the year 1892. With the exception of the first few years, the works of this branch were situate in Playhouse Yard, Golden Lane, until the year 1900, when they were removed to the present site at Leyton.

The products of the company are well known, and amongst the best of their kind, being supplied to all users of bare and insulated electric wire, from the manufacturers of great electrical apparatus to makers of the finest instruments, and also to all Government Departments, using electrical wire.

The company has, for a great number of years, been the principal producer of armature and magnet wires of all descriptions used in the construction of generating plant, of dynamos, of railway, tramway, and mill motors—it specialises in the manufacture of instrument and high resistance wires, for switchgear, magnetos, recording and other instruments, and for electrical apparatus of all kinds—and is also very largely interested in electric cables, wires, and flexibles used for power, lighting, telephonic, and telegraphic equipment.

These wires and cables are insulated with either cotton, silk, asbestos, paper, rubber, and are of all sizes and sections. The company employs at Leyton upwards of 1,500 workpeople. The factory is equipped throughout with the most modern buildings and machinery.

The accompanying block-plan shows the site, having an area of fourteen acres, of these extensive works and the existing buildings, together with the future development.

Blocks A to E are pre-war buildings, two storeys in height, of brick construction with wood floors, carried on

R.S.J. and C.I. columns and roofed with saw-tooth roofs.

Block F is a pre-war building, two storeys in height, with wood floors carried on R.S.J. and C.I. columns, and with flat roof with large skylights.

Block G.—This is a building constructed entirely of steel framing covered with galvanised corrugated-iron sheeting, the bottom portion of the walling being of concrete construction.

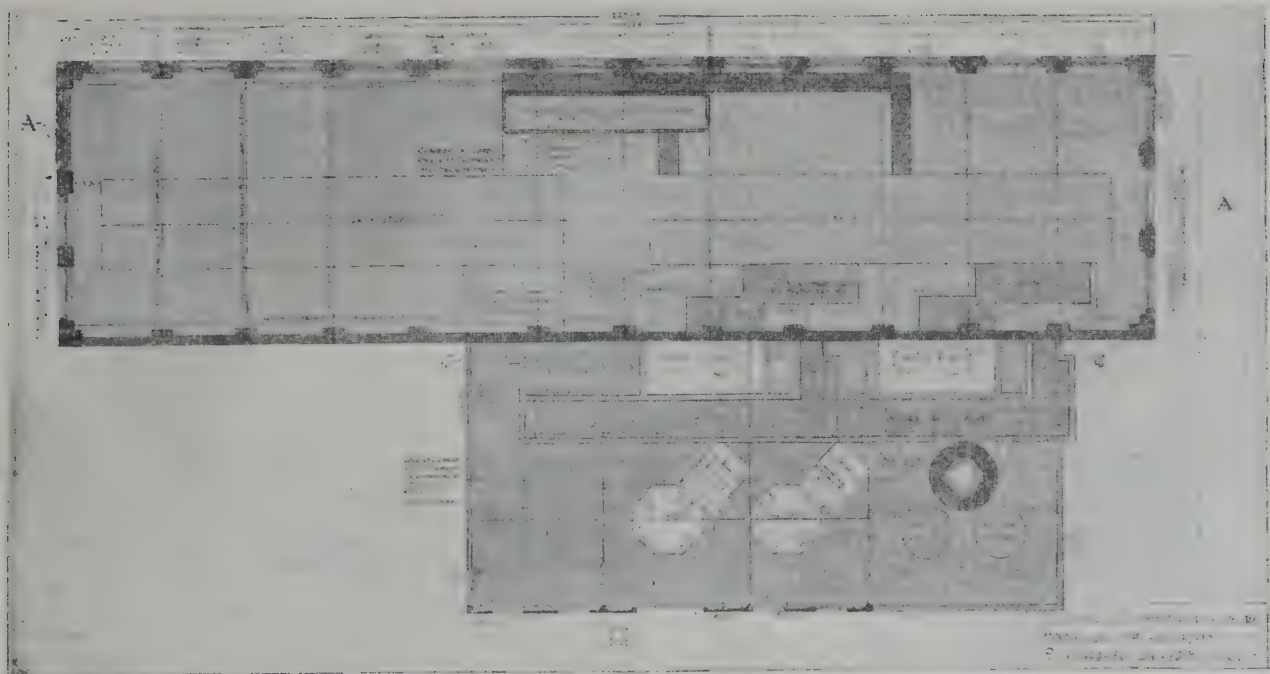
A number of subsidiary buildings are shown, comprising: Boiler-house, gas-plant house, joiners' shop, smiths' shop, annealing shop, technical laboratory, &c., and dining hall, the latter forming a convenient building for social gatherings and meetings in connection with the various sports clubs run in connection with the works.

The power to pre-war buildings is supplied by direct coupled gas-engines in each block, for which Dowson Producer Gas Plant is installed, and these are augmented by a Westinghouse 225-h.p. two-crank, four-cylinder, tandem, vertical gas-engine, with an E.C.C. generator giving 150 kilowatts at 100 volts D.C.

The site presented considerable difficulty owing to the difference in level between the front and back land, varying as much as 20 feet. This natural disadvantage has, however, been utilised to good account particularly in the post-war buildings. A careful adjustment of the floor levels, by which means excavated material has been used to make up where the ground is low, has given very good results.

The floor of Block H and corridor has been kept up to waggon height above the road, so that goods are unloaded on the level. The first floor of Block J is at the same level as the ground floor of Block H, whilst the basement of Block H and the ground floor of Block J are 15 feet below. By a system of high- and low-level roads it is possible to run electric trolleys practically over the whole of the works, thus speedily effecting transfer of goods with a minimum of handling.



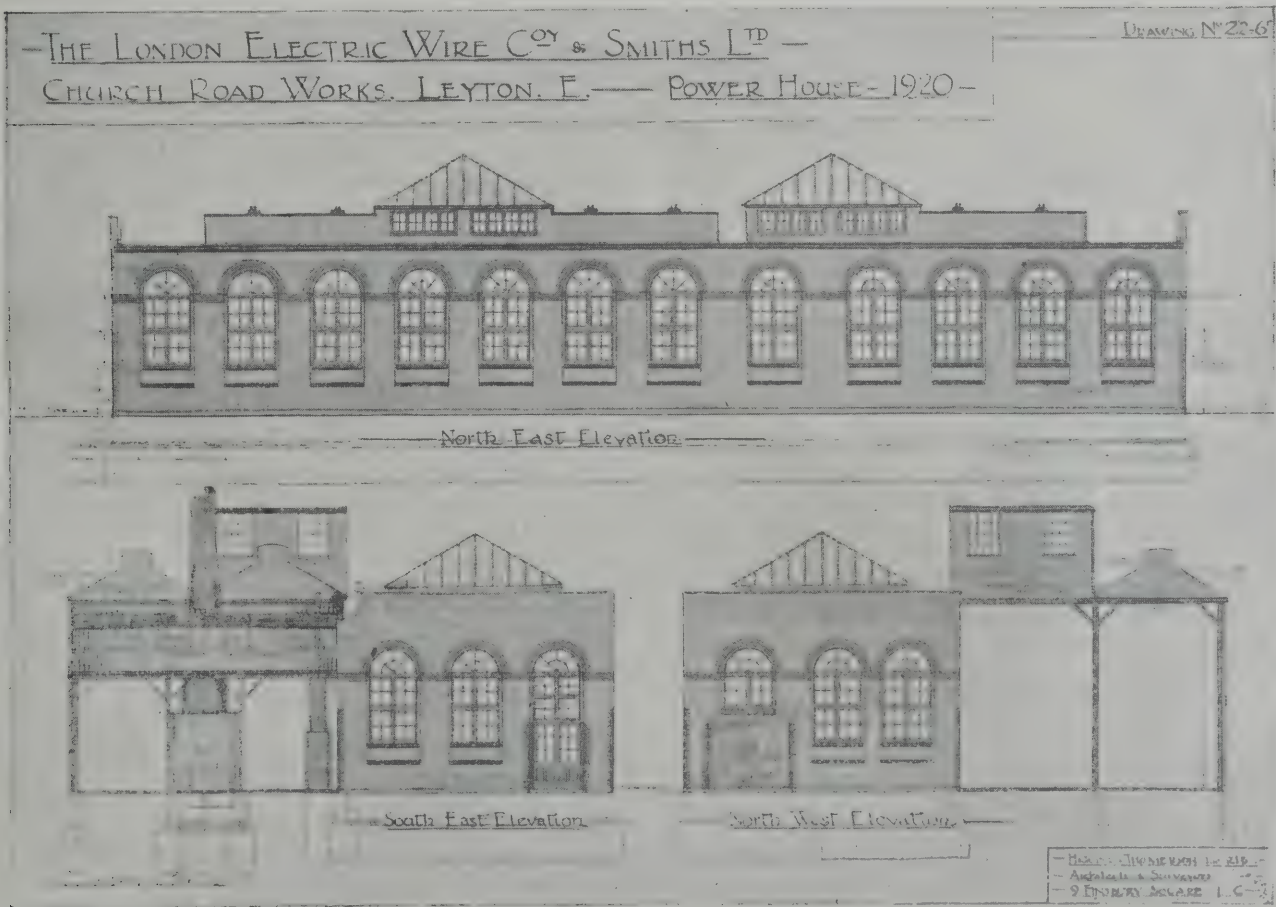


The block plan shows the future extensions in which Block H will be continued, serving as a warehouse for both receipt and despatch of goods. This is separated from the manufacturing blocks J, L, &c., by a service corridor 25 feet in width, which provides accommodation for hat and coats, &c., and at the same time prevents congestion either of goods or employees.

*Block H.*—Warehouse building comprises a building 164 feet by 80 feet, with basement, ground and first floors. The construction is stock brickwork in cement, with deal window-frames and sashes. The floors are carried by R.S.J.s and steel stanchions, the ground floor being reinforced concrete covered with maple, and the first floor wood joists with deal floor. This is counter-floored with maple in order to obtain a good wearing surface and to facilitate renewals. The roof is flat with two large skylights, which give ample light both to the first

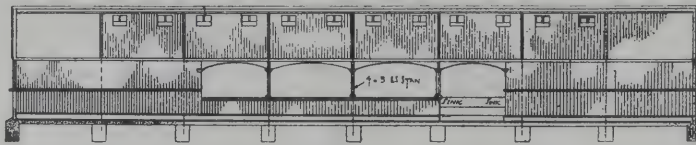
floor and, by means of the well-holes, to the centre portion of the ground floor.

The first floor of this block is used for manufacturing purposes, for which the excellent lighting makes it particularly suitable. The ground floor is used for the receipt and despatch of material and goods, and by a simple device all the heavy raw material gravitates to the basement for storage. The service corridor contains the staircase and electric lift, giving access to the upper and lower floors, thus leaving the main floors clear of obstruction. This building is also well lighted by means of skylights in the flat roof, and is separated from Block J by fire-resisting doors and screen. The staircase is of teak, and in order to avoid the difficulty so often experienced of repairing the treads when worn, they have been constructed with counter-treads, which can be easily replaced.

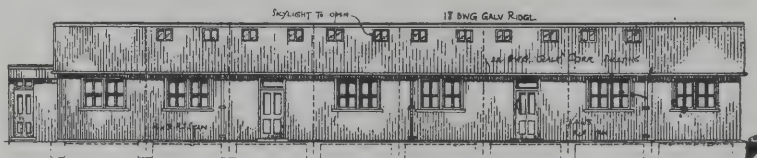




THE LONDON ELECTRIC WIRE CO & SMITH'S, LTD  
CHURCH ROAD WORKS, LEYTON, E.  
PROPOSED DINING HALL



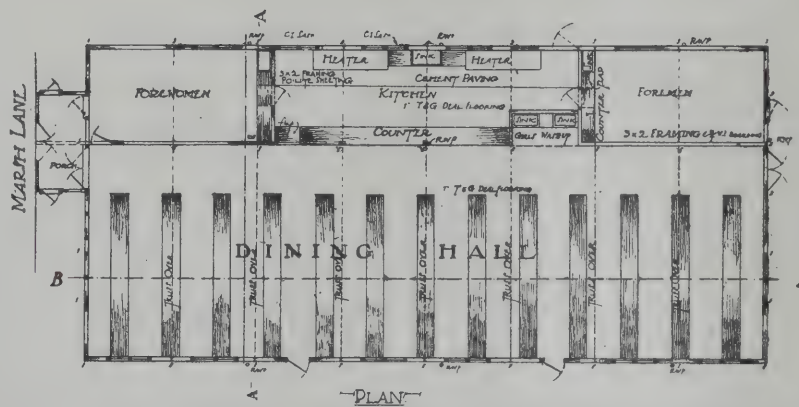
—SECTION, B-B—



—ELEVATION—



—SECTION, A-A—



—PLAN—

HIGGINS & THOMERSON, Llc RIBA  
ARCHITECTS & SURVEYORS,  
No 9, FINSBURY SQUARE  
E.C. 2, LONDON

The cill bricks are of blue Staffordshire ware, especially made to the architect's design. Owing to the height of the storeys, it has been possible to eliminate the labour usually expended in cutting and fitting the wood joists to the R.S.J.s. The latter have been kept down, so that on top of them a wood plate can be bolted to which the wood joists are fixed with lapped ends.

**Block J.**—This comprises a two-storey building 200 feet by 64 feet, of similar construction to Block H, and is used for manufacturing purposes. The ground floor is 15 feet in height, so that good light is obtained over the whole of the floor area. The first floor is also 15 feet in height, and is exceedingly light with its three large skylights in the flat roof. Foresight has been shown in this building by designing it so that a further storey can be added at a later date if required without interfering with the use of the premises during the erection. The ground floor is laid with granolithic to take the heavy machinery, whilst the upper floor is wood counterfloored as in Block H. The staircase is outside the building, thus leaving the floor space free from obstruction, and has been designed so that it will serve Block L as well when erected. An electric lift is provided in the well of the stairs.

The buildings H and J are heated by means of hot-water pipes and radiators, designed to act as a natural system in mild weather, and as an accelerated system in the colder weather, by means of a motor-driven pump fixed in the power-house near the boiler. By a judicious use of comparatively small pipes, the unsightliness of large pipes has been avoided, and by keeping the pipes overhead on the lower floors it has been possible to avoid trenches and provide a system that can be easily drained when required.

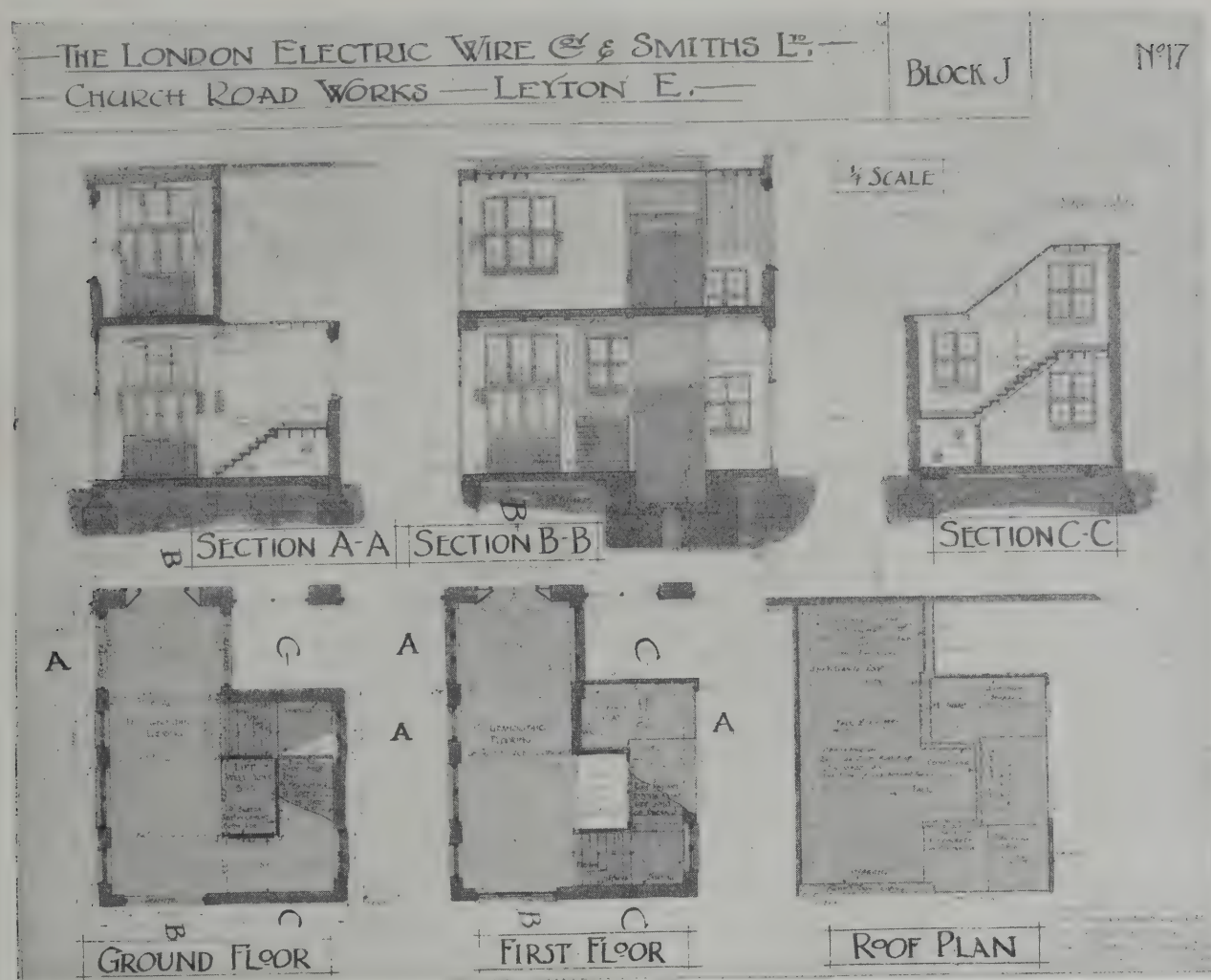
**Lavatories.**—These are single-storey buildings of brick construction with reinforced-concrete flat roofs and granolithic floors. In addition to windows, they are lighted

and ventilated by skylights in the roofs. Accommodation is provided for both present and future needs on a more generous scale than the minimum official requirements. The whole of the w.c. divisions have been constructed in reinforced concrete, the door hinges being fixed to hard wood blocks built in, thus eliminating woodwork wherever possible, and enabling the whole to be cleansed by means of a hosepipe, the channel in the centre of the floor allowing the water to flow readily away. Glazed stoneware washing troughs are fitted, to which a constant supply of water at 100° F. is provided by means of a number of anti-splash cocks, regulated to give sufficient to allow washing in running water, but so regulated that in the event of a tap being left on, great waste of water cannot take place. In the women's block an attendant's room is also provided. Every w.c. branch is fitted with an inspection cap, to facilitate clearing in case of stoppage—a point to which sufficient attention is often not given. Great care has also been taken to see that all water-pipes can be easily emptied during the week-ends and holidays, and the trouble of bursts avoided.

**Block K.**—This building 200 feet by 45 feet, is constructed entirely of reinforced concrete, and has been designed for storage purposes. The first portion is single storey, the remainder two storey. A gangway through the centre of the first portion connects the first floor of the second with the loading floor at waggon height. The ground-floor levels vary to suit the gradients of the roads, the sliding doors giving access to both the old and new roads. The roof is flat, with three large skylights, and the windows have been purposely kept well above the floor in order to allow full use to be made of the storage-room. Fire-resisting doors separate the two portions of the building, and two fire-resisting staircases give access to the upper floor and gangway.

**Power House.**—This building, which is 128 ft. by





33 ft., has been designed of composite construction, the walls being of brickwork in cement, with stanchions built in to take the weight of the roof and tanks. The roof and tanks are constructed of reinforced concrete, the latter being lined with asphalt. The three tanks have a capacity of 7,000 gallons each, and over them are mounted the water-cooling towers. The water gravitates from the tanks to the engines, and then passes to the filter and storage tanks, from which it is pumped to the coolers for cooling and reuse.

Adjoining the power house are the boiler house and gas-plant house. These are steel-frame buildings, with reinforced concrete enclosing walls, and are roofed with corrugated asbestos sheeting. Space is provided for four vertical boilers to be fixed around the steel chimney 55 ft. in height, thus providing ample accommodation for future heating.

The whole of the rain water from the new buildings is passed through filters and collected in the storage tanks for use for the engines, and, in addition, a water-softening plant is installed, in order to utilise the Water Board supply should occasion require.

The additional plant installed in these buildings comprises two Crossley suction gas plants; two 250-h.p. four-cylinder horizontal engines, by the Premier Gas Engine Co., Ltd.; two Crompton's electric generators and switch-board; Kennicott water softener; and a Vaughan five-ton overhead hand-power crane.

**Roads.**—Good roads have been laid down, with hard-core foundations finished with tar macadam, and, in order to facilitate the laying of gas and water pipes—subsequently, reinforced concrete ducts are provided, in which these may be laid without disturbing either the road surface or foundations.

The contingency of fire has been provided for by a complete system of mains and ample provision of hydrant appliances ready to hand, which would enable the works' fire brigade to deal with any outbreak promptly.

The whole of the general builders' work of Blocks A to F has been carried out by C. R. Price and his predecessor (S. J. Scott), whilst the later works, H, J, &c., have been carried out by Messrs. Walter Lawrence & Son, Ltd., the reinforced concrete and granolithic paving by Messrs. F. Bradford & Co., whilst the Aston Construction Co. have carried out the whole of the constructional steelwork with the exception of Block G, for which W. Harbrow, Ltd., were employed. The following sub-contractors have also been employed: Wembley Heating Co., hot-water heating; Vulcanite, Ltd., flat roofing; British Challenge Glazing Co., skylight glazings; Expanded Metal Co., reinforcement; Yannedis & Co., door and window fittings and gearing; Smith, Major & Stevens, lifts; Constable, Hart & Co., tarmac roads; Bradshaw Asphalt Co., asphalt paths, &c.; Lawford & Co., asphalt tanks; Merryweather & Co., fire appliances; Leeds Fireclay Co., lavatory troughs and urinals; T. A. Harris, w.c. apparatus; John Thompson (Dudley), Ltd., steel chimney; Drake & Gorham, Ltd., electric wiring and lighting; W. H. Roy & Co., Manchester, water-cooling towers; J. W. Gray & Co., lightning conductors.

The architects are Messrs. Higgins & Thomerson, Licentiates R.I.B.A., 9 Finsbury Square, E.C. 2.

PROFESSOR DEARMER will commence on Thursday, January 20, at King's College, London, a course of ten public lantern lectures on "The Rise of Gothic Art, 1140 to 1240." The hour has been changed to 5.30 P.M. for the convenience of business people.

On Christmas Eve the President of the Royal Institute of British Architects sent the following telegram to His Majesty the King: "To His Majesty the King, Sandringham,—Royal Institute of British Architects submit humble duty to His Majesty their Gracious Patron, and offer very sincere wishes for Happy Christmas.—Simpson, President." The following gracious reply was received the same evening: "The King sincerely thanks the Royal Institute of British Architects for their Christmas greetings which His Majesty heartily reciprocates."



## Birmingham Architectural Association.

THE fifth general meeting of the session was held at the Association's rooms, Royal Society of Artists' Buildings, New Street, Birmingham, on Friday, December 31. The President, Mr. H. T. Buckland, F.R.I.B.A., took the chair, and thirty-six members were present.

Professor F. C. Lea, D.Sc., gave a paper entitled "Reinforced Concrete," in the course of which he threw out some valuable hints to architects regarding the employment of reinforced concrete as a building material.

The combination of artificial and natural stone with metal reinforcements, he said, was in some measure practised by the Romans, but there is no evidence that there was an appreciation of the real significance of the use of metals in conjunction with concrete until quite recent times. During the last century there has come into being a science of materials and structures; and a body of theory based upon fundamental hypotheses which are verified by experiment has been developed, which makes it possible not only to be more courageous in the use of materials, but also to use new materials, such as steel and reinforced concrete economically, and with the greatest confidence, for the construction of building bridges and other structures which would hardly have been otherwise possible.

The steel used in reinforced concrete, within the ranges of stress to which it is subjected, agrees with the fundamental hypotheses of elasticity almost perfectly, but the concrete does so only with a certain degree of approximation. Nevertheless, experiments that have been carried out in many countries show that theories are sufficiently reliable when care is taken to use proper aggregates for the concrete and when the concrete is made under strict supervision. The real difficulty very frequently is not in anticipating what the distribution of stress in any part of a structure will be when the loads to which it will be subjected are known, but rather what those external loads are likely to be, and whether the human factor in the making of the concrete had been such as to make it untrustworthy.

The latter condition is a real possibility unless those who are responsible for the manufacture and supervision not only take the greatest care, but are also sufficiently technically trained to appreciate those fundamental principles that under no circumstances must be violated.

The first necessity for good concrete is a high-class cement. Fortunately in this country there are a number of firms who are able to supply this, and with a reasonable amount of supervision there should be very little risk of unsatisfactory concrete from this source. If all cement is purchased under the terms of the British standard specification, and frequent tests are taken, success can be assured.

The question is often asked "whether steel is prevented from rusting by concrete." If properly imbedded in concrete that is not porous, there seems no doubt that it is perfectly protected from rust.

One serious word of warning is, however, required with regard to reinforced concrete for the construction of so-called fireproof buildings. In the sense that reinforced concrete cannot possibly burn, such buildings are fireproof, and it is also true that, when fires rage in such buildings, they are not likely to collapse so completely as stone or brick buildings, or even as readily as steel-frame buildings, but as at present constructed they are by no means fireproof. Researches subsidised by the Department of Scientific and Industrial Research are being carried out on this important question. The results achieved have been largely negative rather than positive, and indicate that no structures, as at present constructed, are likely to withstand, without very serious damage, the effect of an intense fire. The results of fires, as, for example, at the Millennium Mills, tell the same story. The fundamental experiments referred to are throwing some light upon the conditions that will have to be met if successful fireproof buildings are to be made, but much more research is required.

We are living in an age when labour and material are expensive, and one of the problems of the day is how to maintain economy of expenditure in buildings not only with the highest degree of suitability to the particular purpose for which they are to be used, but also to obtain the best and most pleasing architectural effects. Reinforced concrete can no doubt be used to satisfy these aims, and architects working with those who understand the constructive and scientific possibilities of this material may use it to produce worthy structures.

The lantern slides by which the paper was illustrated contributed greatly to the interest and usefulness of the lecture.

The vote of thanks, which was proposed by Mr. A. Harrison, F.R.I.B.A., and seconded by Mr. W. W. Whetton, received the unanimous approval of all present, and was carried with acclamation.

## Correspondence.

*To the Editor of THE ARCHITECT.*

SIR,—The enlightened (?) Corporation of the city of Leicester are promoting a Bill in Parliament this session, and I think it my duty to point out one of the sections in this lovely Bill. Section 99 reads as under:—

"It shall be lawful for the Corporation, when approving at any time after the passing of this Act any plans relating to the laying out of lands for building purposes, to require as a condition of such approval that before selling or granting a lease of any such lands the owner thereof shall, in addition to sewerage any streets or roads shown on such plans, construct and make up such roads to the satisfaction of the surveyor. If any person shall neglect to comply with any such requirement he shall be liable on summary conviction to a penalty not exceeding £10 and to a daily penalty not exceeding £5."

Owing to stupid by-laws and regulations and other stupidity it has taken me six years to get four or five roads made, and what work has been carried out has not been approved by the Corporation.

The city clerk attended a meeting of the Rotarians some time ago, and said that every facility would be offered to people to come to Leicester to develop new industries and new land developments. This section shows the type of help which might be expected if they were venturesome enough to come.

I shall be glad if you will give this section all the publicity it is possible to give it.—Yours, &c.,

W. H. SIMPSON.

94 New Walk and 1 Upper Nelson Street,  
Leicester.

December 31, 1920.

## Lord Kitchener Memorial.

*To the Editor of THE ARCHITECT.*

SIR,—With reference to the letter from the President of the Sculptors' and Carvers' Society, which appeared in your issue of the 24th instant, we wish to state that your correspondent has evidently been misinformed. It has never been contemplated that any sculpture or carving should be done in Italy or anywhere else outside this country.—Yours, &c.,

DETMAR BLOW & FERNAND BILLEREY,  
Architects to the Lord Kitchener  
National Memorial Fund.

10 Grosvenor Road,  
Westminster, S.W. 1.  
31st December, 1920.

## Chelsea Arts Ball.

*To the Editor of THE ARCHITECT.*

SIR,—With reference to the drawing for the decoration of the above which appeared in THE ARCHITECT, this drawing also appeared in the "Daily Graphic" of the 31st ult., but in the latter case under my name only, instead of Augustus John, Percy B. Tubbs, F.R.I.B.A., and L. H. Bucknell, A.R.I.B.A.

I shall be glad if you will give this publicity in justice to my partners.—Yours, &c.,

L. H. BUCKNELL.



## The Ministry of Health and the Building Gilds.

WE have received the following statement from the Ministry of Health:—

It is the duty of the Ministry of Health to secure the building of large numbers of houses at reasonable prices and they are bound to explore every possible means by which houses can be satisfactorily produced.

For the most part the contracts which have been made by local authorities are with private builders, and *ninety-three per cent.* of the houses for which tenders have been approved are to be built by private builders. It is notorious that builders have not succeeded in obtaining from the operatives a satisfactory output and that the costs of houses are extremely high.

The Ministry have accordingly felt bound to try alternative methods. Under one of these local authorities build by direct labour, and five per cent. of the houses under construction are being built in this way. So far the financial and labour results from this method are encouraging.

Another alternative method is the Gild Contract. Representatives of Labour have claimed that good results from the point of view of output and economy would be secured by labour undertaking to build on a co-operative basis. The Minister of Health, being bound to lose no reasonable chance of progress, decided to put this claim to the test, but in view of the novelty of the proposal and the absence of experience it was thought necessary to limit the experiment for the time being, and, therefore, only a limited number of schemes in various parts of the country by buildings gilds have been approved. The number of houses in gild proposals is approximately 1,500, as compared with the total of 167,168 for which tenders have been approved.

The schemes have not long been in operation but already the experience shows that the output obtained compares favourably with that on other schemes, and that the costs promise to be lower than on many other schemes. At Bedwelty where a gild scheme has been in operation for some five months, the costs up to the present indicate, that if equally good progress is maintained the houses when completed will be well below the estimate and about £150 less than the average for similar houses in South Wales.

The statements that the gild contract guarantees the workers a five per cent. profit and that if the Gilds save £100 on a house they lose money, are not understood. The gild receives a fixed remuneration of £40 a house.

The statement that the employers' contract allows  $1\frac{1}{2}$  per cent. for establishment charges, while the Gild are allowed six per cent. for the same charges is incorrect. Under the cost contract which is most nearly comparable with that of the Gild the contractor receives the whole of the establishment charges on the site whatever they cost, he receives also payment for builders' plant, and for all other plant by percentage on costs, together with the costs of erecting and maintaining plant, most of which charges and some others in the case of Gild contracts are covered by the six per cent. In some instances it is already clear that the payment to builders for establishment charges will exceed six per cent. It has been agreed with the Gild that in the event of the six per cent. allowed in the present contracts proving more than necessary to meet the charges which it is designed to cover, a reduction will be made in future contracts.

It is an essential feature of the Gild, as with other co-operative bodies, that remuneration received shall be distributed among the Gild members. The remuneration of the contractor goes into his own pocket; in the case of the Gild, the remuneration is in part divided among the workers on the basis of securing for them continuous pay without deduction for the time lost by weather, sickness, or reasonable holiday, and is in part applied to improving the Gild service and reducing the cost of future houses which they may erect.

This in no way prejudices the question of the allowances to be paid to the building operatives as a whole for time lost through stress of weather, and it is a specific provision of the Gild contract that if any scheme of payment for wet weather is applied to the industry as a whole, the £40 remuneration to the Gild shall be correspondingly reduced.

To sum up, the Gild system is an experiment being tried on a strictly limited scale as a means of securing the increased output and reasonable costs which have not been secured through building contractors. It is being watched carefully and results are being tabulated for consideration.

[It is singular that Mr. Easten, who has had considerable experience in these matters, should be utterly and entirely wrong. Is he incorrect or is the above statement incomplete?—Ed.]

## New Books.

"Old English Furniture and its Surroundings." From the Restoration to the Regency. By MacIver Percival. (William Heinemann.) 30s.

YET another book on old furniture! But upon perusal of the work the original involuntary sigh proved unjustified. Mr. Percival's "Old English Furniture and its Surroundings" is a valuable contribution towards the thorough and intimate acquaintance with the period from the Restoration to the Regency. For it is not every day that we come in contact with so complete an atmosphere of any given period. The author has divided the whole into four sections—(1) The Restoration; (2) The End of the Seventeenth Century and the Early Eighteenth; (3) Early Georgian; (4) Late Georgian; and in each section he deals separately with permanent decoration, furniture, upholstery (including wall and floor coverings), table appointments and decorative adjuncts. This combination is useful and interesting above the average, and gives us a glimpse of the influence upon the arts and crafts of the life and culture of the times. Also it throws a curious light upon the manner in which English taste assimilates what is useful and congenial to it in foreign art, and rejects everything that is not to its liking, whilst insisting on comfort and good workmanship at any cost. We are here forcibly reminded of a speech made by Rudyard Kipling on St. George's Day of this year, wherein he portrays this same characteristic of the British people, of silent toleration towards influences Roman, Norman, Cromwellian, Stuart, Hollander, and Hanoverian, giving them each a fair trial, and when they had quite finished with them, a fair dismissal.

As a book of reference the volume before us should be invaluable to those who have occasion to plan harmonious interiors in the styles of bygone days, and save considerable trouble in consulting books dealing with the different features and original authorities.

The important item of illustrations, consisting mostly of photographs, has been very successfully dealt with. The specimens selected are typical of the style in vogue at their respective periods. The book is well got up, and the photographs satisfactorily reproduced.

W. K.

THE estate of the late Mr. W. Ward, of Southsea, builder and contractor, has been sworn for probate at £56,271.

THE London Education Committee has agreed that a war memorial, in the form of a "roll of service" contained in a shrine, should be supplied to each of the Council's secondary and public elementary schools desiring one, at a cost not exceeding £14,000. The shrine will be of black wood, with a glazed wing panel hinged to each side, made to fit into a wall recess. The roll of service will be a book of hand-made paper bound in brown leather. The names of all old pupils and members of the staff who served in the Forces are to be written in the book by students at the L.C.C. Central School of Arts and Crafts, and the binding be done by the boys in the day technical school at the Central School. The total number of names to be inscribed is approximately 50,000—there being a rough average of forty names for each of 950 schools.



## An Unpublished Book of Æsop.

### No. 3.—The Assessor's Dream or an Architectural Nightmare.

ONCE upon a time there was an Architect who had renown in his calling, his place was a great one in the Councils of the Profession, and he held high office yet in the day we write of was he weary, and Sweet Sleep did descend upon him. And in sleeping he dreamed, and even as he dreamed it seemed that he was being ferried across the Styx by Charon, whose barque, after struggling with the current, reached the further side.

And the Architect left the barque, and climbing up the bank, beheld two doorways, on one of which was written "men" and on the other "women," and on each door was a mighty knocker of bronze. And the Architect knocked at the door which was inscribed "men" and it was straightway opened unto him. And behold Rhadamanthus sat within and a counter with a flap therein barred further progress. And Rhadamanthus wrote entries in a book for many minutes, and then looking up bade the Architect to be seated that he might make question of him and find out whether he had right of entry further. And presently Rhadamanthus asked him his trade or calling, and the Architect made answer mentioning his letters and qualifications, including his honours and the assessorships that had been given unto him. But at the word assessorship Rhadamanthus cried "hold," thou hast entered by the wrong door, for this entrance is only for "men," and the Architect said, "Am I not a man?" and Rhadamanthus added, "Even since the childhood of the world a man said what he wanted, and behold he wanted it, whereas a woman said what she wanted, and behold she craved something that was otherwise." And Rhadamanthus added—and thus doth the assessor also, wherefore we know that assessors are not men, for we have records of what they do upon our scrolls. And the Architect blushed, but as he considered the past he could not say nay to the keeper of the gates, for he remembered that in the days of his pride he was wont to regard himself as above law and common sense, and none could gainsay his word, yea, the very journals would oft-time say white was monstrous like black if he expresses an opinion accordingly.

But before Rhadamanthus his heart was humbled, and he prayed him to turn him not away, for he was weary and the crossing of the water had made him sick, so that he needed rest and quietness. But Rhadamanthus made answer, "It can in no wise be, after recent awards we have decided in Council that no assessor can be a man, for their decisions are inconstant and unreasonable as a maiden's fancy, but try the next door for mayhaps you will find admittance even as a woman." And the assessor went sadly and knocked at the other door, and when it was opened behold a great noise of talking arose, and the doorkeeper straightly questioned the assessor as to his qualifications. And he boasted of his unreason and inconstancy, and the doorkeeper having heard him made question: "Did thy unreason charm any" or "was thy inconstancy forgiven for love's sake." And the assessor said "No," then said the doorkeeper, "Woman art thou not, nor can thou in any way enter into the abode the door of which I guard." At this point the Architect woke suddenly and straightway filled his pipe and moralised in this wise: "If the deeds of this life are indeed reckoned in the records of the future it were well to give fewer causes for complaints." And his future judgments were just and well considered and even according to the rules he drew up and behold when he was gathered to his fathers, his younger colleagues put up a monument in public to his memory, and the inscription ran "He was just even to his younger brethren who reverence unto his memory."

MORAL.—A timely reminder may save future grief.

## A Retrospect and (it is hoped) A New Year's Forecast.

*Dedicated to the Unification Committee.*

The Dame Architecture, most brilliant in her youth, Majestic in maturéd years, ever, in truth, A most accomplished Lady of world-wide renown, Benefactress, alike, of country and of town.

Alas! fell beneath the spell of fashion antique,  
Stiff robes restricting movement, progress at times was [weak,  
Her e'er widening sphere calling for deepest thought,  
And Family fretful, the mind was overwrought.

Physicians, many, gave advice, for th' Dame prescribed,  
But with no good result their remedies were tried,  
At last a strange, dark, austere, o'erpowering man  
To cure her enforced a very drastic plan.

I'll take and train your sons while you for full five years,  
Rest and meditate; then, deputing petty cares.  
Restart! concentrating strength!!! The mind is o'er-  
[wrought,  
Worried with much detail, had but scant time for thought.

The years have passed, the Dame rejuvenated,  
Guiding with firm hand her sphere has recreated;  
Her sons, their lesson learn'd, now all e'er work as ONE!  
On brilliant buildings, 'neath blue skies and noonday sun.  
W. J. H. LEVERTON.

## Belgian Cement Production.

THE Belgian Press some few weeks ago noted the formation of a union of Portland Cement Manufacturers known as the "Groupeement de Fabricants Belges de Ciment Portland Artificiel," and after giving a list of the firms included in the Union states that an agreement has been concluded between the Government and these manufacturers with regard to the supply of cement for public services. The agreement fixes the price per ton on wagon or on boat and the price allowed on the sacks when they are returned. These prices are subject to alteration.

The monthly production in Belgium of 50,000 tons is divided up as follows: For the State, 14,000 tons; for domestic consumption, 11,000 tons; and 25,000 tons for exportation. In the event of the State and the rest of the country not utilising the whole of the 25,000 tons, authorisation will be given for the remainder to be exported.

As a result of this agreement the necessary cement for public works will be provided by the State or by an agent of the Government. The State will provide reasonable quantities direct from their own stocks, whereas larger amounts must be obtained from the factories which will supply the cement at the price arranged by the Government.

The cement industry has made great efforts towards recovery since the armistice, and at the present time the production of the factories is about two-thirds of that of 1913. This applies to all the factories, with the exception of the Cannon Brand factory at Burght, which was completely destroyed by the enemy.

It is anticipated that by the end of the year the production in this industry will equal that of pre-war days provided that the supply of coal does not fail. In the course of next year several manufacturers are increasing their number of ovens, which will result in an increase of production equal to at least a quarter the present quantity produced. In these conditions it is hoped that the Government will do all in their power to assist the cement manufacturers in the exportation of their goods.

A MINISTRY OF HEALTH inspector will hold an inquiry at Sheffield Town Hall on January 12 into an application by the Corporation for sanction to borrow £200,000 for the purpose of carrying out a new refuse-disposal scheme.



## MODERN PLANT FOR DISPOSAL

*Surplus Mechanical and Chemical Plant, the property of Nobel Industries, Limited, is available for disposal. The list includes Steam, Gas & Oil Engines; Locomotives, Boilers, Air Compressors, Fans & Heaters, Pumps, Shafting, Pulleys and Weighing Machines. Also Buildings of Steel, Wood & Brick*

Descriptive Pamphlets will be sent with  
**FULL PARTICULARS  
ON APPLICATION**  
Write or Telephone—Victoria 4299

**NOBEL INDUSTRIES LTD.**  
PLANT SALES DEPARTMENT  
5 Palace Street, LONDON, S.W. 1



Platers' Shed at Large  
Shipbuilding Yard,  
coated with  
"Bitumastic" Solution.

## "BITUMASTIC"

Regd. Trade Mark.

**Lengthens Life of Steel and Iron  
Structures by Preventing Rust.**

It lasts longer, dries quicker, goes much further, and costs less than oil paints. Although hitherto obtainable in Black only; Red, Brown, and Green shades can now be supplied possessing the lasting qualities of the Black, with the additional advantage of permanent colour.

## WAILES DOVE BITUMASTIC LTD.,

NEWCASTLE-ON-TYNE, London, Liverpool, Glasgow, Leeds, Manchester, Birmingham, Hull, Cardiff, Dublin, New York, etc.

Telegrams: "Bitumastic."

Telephones in Every Office.

# SITES for . . . WORKS, FACTORIES WAREHOUSES, etc. ADJOINING THE G.W.R.

**Numerous areas of land, admirably situated.**

**Good Water Supplies. Proximity to Good Markets.**

**This Railway is connected with some of the largest Steam, Anthracite, and House Coal Fields, many of the Principal Ports, and important and extensive Iron and Steel Producing Centres.**

**Information as to Suitable Sites, Siding Facilities, Conveyance Rates, &c., will be readily afforded on application to Mr. C. A. ROBERTS, Chief Goods Manager, Paddington Station, London, W.2, to whom Owners and Agents of Land and Premises for Sale or to be Let are invited to send particulars for insertion in the Register which is kept to enable information to be furnished to parties requiring sites, &c.**

**CHAS. ALDINGTON, General Manager.**

G.W.R. Paddington Station, W.2.



## Symbolism in Colour—Ancient and Modern.\*

By Grace Ethel Cowell.

SYMBOLISM has been defined as the sign or representative of any moral or spiritual thing by the images or properties of natural or material things. But in general a symbol may be said to be simply a mark by which one knows or infers a thing.

As colour is the outcome of light one may fairly call attention at the outset to Symbolic Light in the form of its expression which is widely known as the nimbus, or a halo of light. The nimbus is of ethnic origin and originally invested the whole body, though now it is confined chiefly to the head, which is not unnaturally regarded as the seat of this so-called divine radiance. The nimbus is a figure of great antiquity, and from the earliest times it has been regarded as a symbol of super-human power. When the solar-disc, therefore, is seen around the head of any figure, the signification is that that figure is a god or god-like.

The Assyrian, Egyptian, and Indian gods have always been surrounded with fiery emanations. To come to the time of the Greeks and Romans, Apollo was crowned with sunbeams, Jupiter with the lightning, and Diana's diadem was the crescent moon.

The symbol of the nimbus is essentially one of honour and dignity, and in the sixth-century Christians adopted it and applied it to Christ, to the Apostles, and to saints and martyrs. And the whole idea was given a moral and spiritual significance.

The use of symbolism in colour—which is light broken up into its various parts—may be seen in the earliest art of which we have any knowledge, viz., Assyrian and Egyptian art. Among the Jews also the symbolism of colour was quite evident. And this is true of the Hindus, the Chinese, the Burmese, the Japanese, and even the Red Indians of America. Everywhere, East and West, we find the symbolism of colour. Yet, strange to say, literature on the subject is very scanty, and information has to be gathered patiently and diligently, here a little and there a little.

Colour symbolism may be employed in either a good or a bad sense. The significance of the same colour varies in different countries at different periods, and in different cities, even when the same event is being celebrated. White, for instance, is held to be the appropriate colour for Trinity Sunday in Rome, Milan, Troyes, Auxerre, Rouen, and Lyons; green is used at Rheims and at Exeter, yellow at Poitiers, blue at Toledo, violet at Soissons, red at Laon, Cologne, and Wells. Moreover, the colours used by ecclesiologists in depicting the robes of Jesus of Nazareth differ according to the period of His life intended to be represented. And the colours used in depicting the Hindu god Krishna vary with his age and occupation. The goddess Kali, like Krishna, is sometimes represented as blue and sometimes as black.

Perhaps there is no country more enamoured of colour, and in which colour has so much significance as India. There saffron is considered the colour of love and wisdom or spiritual illumination; blue is the pure spiritual colour; white represents purity; rose is worn by brides, sometimes mingled with a delicate blue or violet; purple and scarlet are the regal colours signifying the power and justice of the Divine, and green is symbolical of the progress or growth of the human mind.

The Hebrews have always laid great stress on the significance of colour. They held white to be the symbol of purity and the emblem of innocence, hence it was the dress of the High Priest, his holy dress, on the Day of Atonement. White was also the sign of festivity and triumph. Black, the negation of white, was amongst the Hebrews the emblem of mourning, affliction, and calamity. Red indicated poetically bloodshed and war.

Green was the emblem of freshness, vigour, and prosperity. And blue was pre-eminently the celestial colour, the Jehovah colour. Hence it was the colour pre-dominant in the Mosaic ceremonial, and every Hebrew was instructed to have a ribbon of blue for the fringe of the border of his garment, so that whenever his eye saw it he might remember all the Commandments of the Lord his God. Crimson and scarlet, probably from their resemblance to blood, were held to be symbolical of life. Purple was pre-eminently the royal colour.

Colours to the Buddhist are a language, they are symbols, they represent thought. We are slowly coming to the same conviction in the West as in the East. There is in France "L'Ecole Symbolic," a modern school of art founded by Alfred de Vigny, whose main object is the reproduction of forms and colours by the logical transcription of the idea. We are invited to think in colour. When we can do this we have got to the heart of symbolism.

Take the lotus flower, sometimes represented as blue and sometimes as golden. It is the sacred flower of Buddhism. Because it grows out of mud, rears its stalk through water, and from such dark and slimy beginnings yields a lovely blue or golden coloured flower, it has been compared to a virtuous man dwelling in the midst of wickedness, rising superior to it. Buddha is frequently portrayed as sitting or standing upon a golden lotus, thus setting an example of righteousness to men.

The American Indians are much addicted to the use of colour symbolism. All the grotesque colouration on their faces has a meaning. The idea being to represent the different phases of the moon. With them red generally typifies joy and festivity; black typifies mourning, and blue is symbolical of peace.

The colours of the Human Aura afford a fruitful source of symbolism. The health aura, for instance, is described as rose pink in colour, and so we have come to speak of "rose-coloured" when we imply cheerfulness and a spirit of optimism.

In Heraldry, armorial bearings possess a fixed series of colours as well as a wide range of peculiar objects or "charges." The tinctures used in heraldry are nine in number; two metals, five colours, and two furs. The metals are: Or—gold, Argent—silver. The colours are: Gules—red, Azure—blue, Sable—black, Vert—green, and Purpure—purple. Besides these there are the two colours known as tenné—orange and sanguine—blood colour. They stood for disgrace, and are now disregarded. Argent is held to represent purity, justice, and gentleness; Gules to speak of valour; Azure to indicate sincerity and honour; Vert to refer to life and hopefulness. Sable probably has the signification of sadness, and Purpure of opulence and grandeur. But there is no fixed series. Symbolism in colour generally seems to depend very much upon individual opinion or at any rate upon schools of opinion.

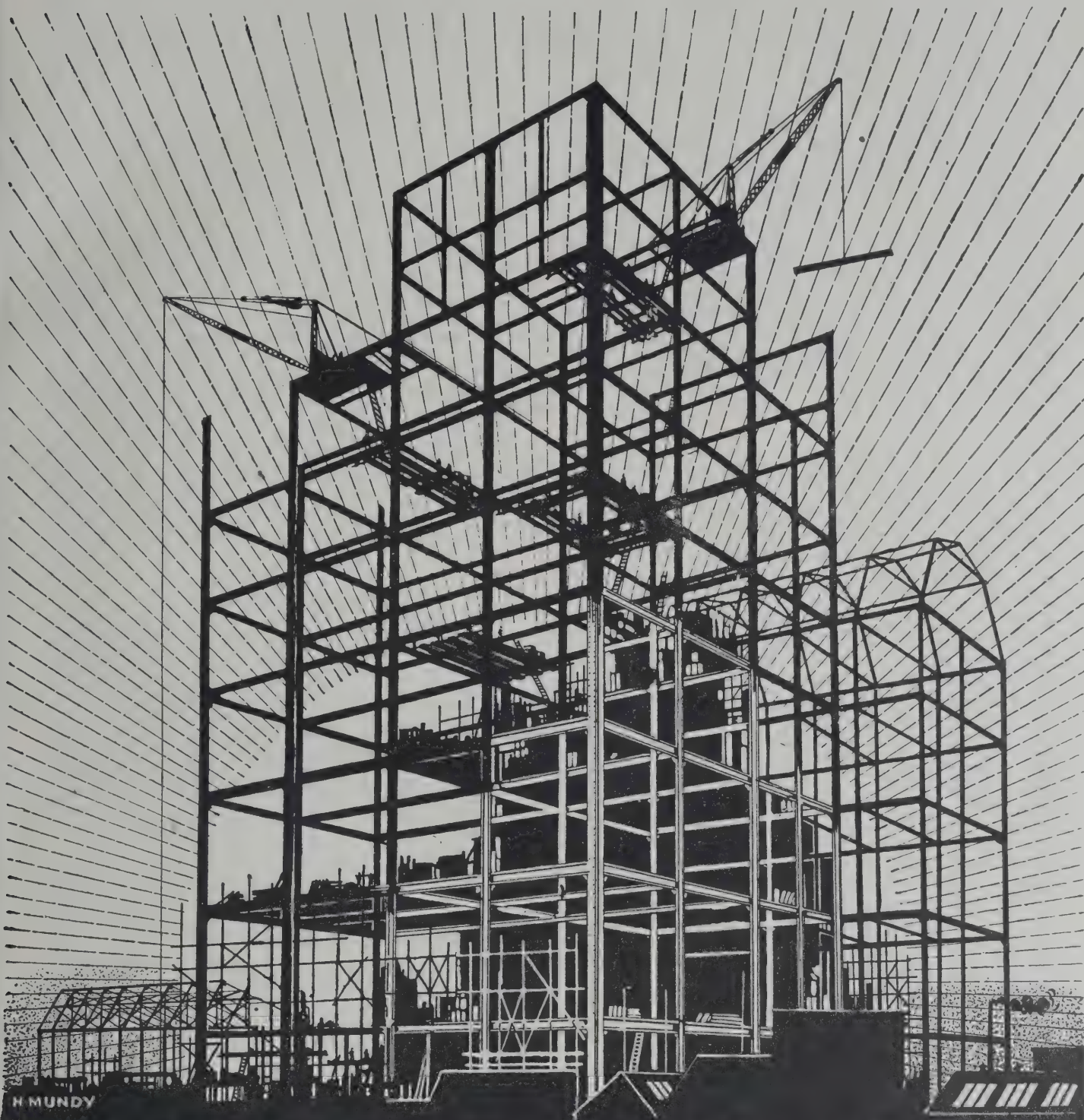
White is universally regarded as the symbol of purity. The priests of the great Egyptian divinity Osiris, who were dedicated to a holy life, were robed in white; so were the priests of Zeus and of Brahma. The Druids wore white garments, and so did the Vestal Virgins of ancient Rome. The Christian Church from the first adopted white as the emblem of innocence of soul and holiness of life. In China white is invariably the colour of mourning, and at funerals the chief mourners wear robes of white, while friends adopt a sash of white in lieu of crape.

Black is in most countries regarded as typical of trouble and sin, of death and mourning. Satan has been called the Prince of Darkness. Black stands as a symbol of all dark deeds and feelings, therefore we speak of "black magic" and "black despair." Almost all allusions to black have a disquieting element in them as, for example, "black-balled," "black-mail," "black-leg," and the "black cap."

Red signifies an ardent love, a burning zeal, a ripe energy and determined courage; that is when used in a good sense. Red in most countries it held to be an

\* Extracts from a paper read at Caxton Hall, Westminster, at a meeting of the International College of Chromatics





# REDPATH BROWN & CO. LTD.

## CONSTRUCTIONAL ENGINEERS

### WORKS AND STOCKYARDS

LONDON  
Riverside Works,  
East Greenwich S.E.

MANCHESTER  
Trafford Park.

BIRMINGHAM  
Office: 47, Temple Row.

EDINBURGH  
St. Andrew Steel Works.

NEWCASTLE-ON-TYNE  
Milburn House.

GLASGOW  
Pinkston.  
Office 19, Waterloo St.

London City Office:- 3, LAURENCE POUNTNEY HILL E.C.4



emblem of the fructifying rays of the sun. To the Hebrews it signified divine love. In China it has the same signification, with the added thought of human love, and is indispensable for talismanic purposes. In Christian art and practice red takes a conspicuous place. It is used on the feasts of martyrs and at Whitsuntide. Red is very widely a symbol of prosperity. The saying "a red-letter day" is the outcome of the old custom of printing the Saints' Days in red ink in the Calendar. In its evil significance red is used as the flag of insurrection and terrorism. Red incites sometimes to anger, and we speak of "seeing red" to express extreme rage. Red has a curious affect on various animals, as for example on a turkey cock or a bull.

In green we have a colour that is used to symbolise hope and freshness. Green is the beloved colour of all Moslems, being the colour of the turban which the Prophet waved to inspire his followers in a critical hour of battle. It is the characteristic colour of the spring-time when all Nature revives again after the numbing slumbers of winter. But it also has unpleasant significations. In folk-lore green is regarded askance from its supposed association with evil fairies. Shakespeare writes of "green-eyed jealousy" and "the green-eyed monster."

Blue is symbolic of many things, as, for example, of sincerity, piety, and contemplation. At Peking there is a sacred edifice called "The Temple of Heaven," in which all the worshippers wear blue robes, all the vessels and utensils are of blue porcelain, and every decoration is blue, even the atmosphere is tinted blue by means of coloured glass blinds across doors and windows. No more acceptable present can be given to Chinese parents than a long silken gown of the deepest blue made by young unmarried girls. A man is thought to lay in a large stock of renewed vital energy on his birthday, and a blue robe is considered a fitting garment for that day.

Yellow, like the other colours, has a varied symbolism. When pure, it signifies brightness, goodness, faith, and fruitfulness. When of a dingy or dull tone, yellow implies faithlessness, jealousy, and deceit. Yellow on the one hand speaks of greed and treason, and on the other hand of unselfishness and honesty. Yellow is also symbolic of wisdom. In France during the sixteenth-century, the doors of felons and traitors were painted yellow. In some Christian countries the Jews were condemned to wear yellow because they denied that Jesus was Christ. As green is prominent in Mohammedanism so is yellow in Buddhism. It was the custom of Buddha himself, it is affirmed, to dress in a simple garment of dull orange colour. And his followers who enter on the monastic life, and most Buddhists do so at some time or other in their career, must wear the saffron robe. In China yellow is a royal colour. In the West as well as in the East, yellow possesses royal associations.

Violet lies to the extreme right in the colours of the spectrum. The warmest colour is red, the coldest is violet. Violet symbolises repentance, sorrow, humility, and truth. It is held by many to symbolise also the union of love and pain. When Christ is represented as the Man of Sorrows he is shown in violet. The Benedictine abbots wore violet up to modern times—now they wear black.

Colour, like everything else in the manifested universe, is a matter of vibration, and at the back of all these local and arbitrary interpretations of the meaning of colour lies, after all, the universal law of correspondences, as a manifestation of which the occultist sees in the colours of the spectrum definite relationships with the seven planes of the Cosmos and the seven principles of man.

THE President of the Society of Architects (Sir Charles T. Ruthen) has been invited by the Committee of the Welsh National Exhibition, of which the Prime Minister is president, to accept the positions of vice-president and honorary consulting architect to the exhibition to be held at Cardiff from May to October 1922. Sir Charles Ruthen has accepted both these appointments.

## General.

THE appointment of Mr. C. A. Clewes, now assistant borough surveyor of Derby, as borough surveyor in succession to Mr. J. Ward, at a salary of £900 per annum, will be submitted for confirmation at the next meeting of the Council. Mr. Clewes has occupied his present position for fifteen years.

THE Art for Schools Association, which has carried on its excellent work for thirty-seven years, ceases to exist as from January 1. A circular, signed by Sir Sidney Colvin, Mr. Lionel Cust, Mrs. Becher, and Mr. Laurence Binyon (the chief officials of this voluntary society), states that this action is mainly in consequence of the decline in the annual subscription list from £300 to about £60.

PRESTON Building Trades Association is protesting strongly against the proposal by the Town Council to establish a Corporation painting department to provide work on the parks and cemetery for unemployed painters. They object to what they regard as unfair competition with private traders, while the National Amalgamated Society of Painters has written, "The establishment of the department will be intolerable and not acceptable to the society."

MESSRS. T. BATH & CO., LTD., 13 Savoy Street, Strand, W.C. 2, have issued a catalogue with reference to their Clearance Sale of manufactured goods, value over £250,000. We understand that in order to effect a clearance all the articles have been reduced 15 per cent. to 50 per cent. off usual list price. A special feature is their new Army type hut which, being in standard sizes and in sections, are easily and economically adapted as dwellings. Other features are huts, shelters, poultry houses, and appliances, rustic work and conservatories. At Messrs. Bath's showrooms in Savoy Street, samples of everything in the list may be examined.

## Housing News.

THE Housing Committee of the Liverpool City Council recommend that an application be made to the Ministry of Health, under the provisions of the Public Health Acts and the Housing of the Working Classes Acts, for their sanction to the borrowing of £3,664,780 in connection with various housing schemes.

THE Wrexham Town Council has decided that a town-planning scheme be prepared with respect to the whole of the borough, and the District Council are to be asked to appoint representatives to meet the Town Council with regard to the town planning of so much of the rural district immediately outside the borough as would be affected by a town-planning scheme for Wrexham.

THE Housing Committee of the Weybridge Urban Council have decided to recommend acceptance of the tender of Messrs. Beswarwick & Co., of Hove, for the erection of the first 100 of the 160 houses it is proposed to erect on the Old Palace Gardens. The tender works out at an average of over £1,000 per house. There is every likelihood, if the tender is finally accepted, of the work being commenced early in the New Year.

AFTER a protracted discussion Darwen Town Council on Monday approved of the erection of forty-one dwelling houses at an estimated cost of £43,000, the work being undertaken by private building firms in the town. Alderman Cocker, a builder, objected to the scheme and prophesied that it would become a "white elephant." The houses would not be worth more than one-third of their cost in time. It was an outrageous scheme to bolster up the building and allied trades at the expense of the cotton and paper industries in the town which were in a deplorable state of depression. He estimated that there would be a total loss on the houses of £26,600. Alderman Worth stated that there were working families in Darwen who earned between £20 and £30 a week, and would be able to afford a reasonable rental.

MESSRS. JOHN F. SHACKLETON & SON (Frank L. Shackleton), whose chief office is at Goole, Yorkshire, have a range of quarries which should appeal strongly to architects and engineers. This firm are sole producers at Culgaith of Crowndale red freestone (which lends itself notably to architectural effects), and are proprietary producers at Barrasford, Greenhead, and Longhoughton quarries. Blocks of any desired size are obtainable, and the quarries are excellently equipped with 15-ton steam derrick cranes, stone-sawing frames, planing and moulding machinery. Their products include Hard York staircase, flags, kerbs, pulpstones, setts, macadam, rockery, and "crazy" paving.



## CONTENTS.

The Year 1920 . . . . .	PAGE 17	Book Reviews (Illustrated) . . . . .	PAGE 33
Illustrations: Notes and Comments . . . . .	18	Forthcoming Events . . . . .	38
London Art Galleries: Art News of To-day . . . . .	19	Departmental Destroyers: A Duet of the Day . . . . .	40
Crosby Hall Settlement Scheme (Illustrated) . . . . .	20	Correspondence . . . . .	40
L.C.C. Housing—Bellingham Estate (with plans) . . . . .	22	Distribution . . . . .	42
Prague.—II. (Illustrated) . . . . .	25	The Society of Architects' Victory Scholarship Competition, 1920 . . . . .	46
"The Architect" Fifty Years Ago . . . . .	28	Royal Institute of British Architects . . . . .	46
The City and Port of London and other Pen Drawings of Edmund H. New (Illustrated) . . . . .	29	Progress in English Sanitation . . . . . (Supp. p. vi.)	38
Household Engineering (with plans) . . . . .	30	Health Ministry's Housing Report . . . . . (Supp. p. viii.)	40
R.I.B.A. Examinations . . . . .	32	Fire Risks: Housing News . . . . . (Supp. p. viii.)	40

## The Year 1920.

It is a time-honoured custom to give a review of the events of the past year at the beginning of the next, a custom which has been broken into by the years of war, in which the building trade—apart from Government activities—was at a standstill. But, unfortunately, though it is over two years since that November 11, 1918, when the Armistice with Germany was announced, this country cannot be said to have settled into her stride. No doubt fervid politicians were optimistic when they pictured the union of all classes in a great effort to build up our arrested prosperity and to restore the waste of war, but he would indeed have been a pessimist who could have foreseen our present condition of unrest and stagnation.

We can all be wiser after the event, but we should probably be safe in attributing many of our evils, including abnormally high wages, to the fact that the great bulk of those who were employed in war work in civilian capacities were lavishly overpaid for their services, with the result that a large part of the population lost all sense of the proper relations of pay and service. This had in every way a bad effect: it led to lavish expenditure, it helped to build up an enormous debt, and it was unfair to those who were risking their lives in the war and who were practically giving their services to their country. The ex-Service men have, unfortunately, little proof even now that their fellows understand and appreciate the efforts they made for the common good. It was natural in the moment of victory that we should be optimistic, and faulty rhetoric on such an occasion can be understood; but, nevertheless, it has done much harm. With the loss of half the accumulated wealth of the country, with dear food and commodities, and with a population worn out by years of excitement, it was wholly natural that it should be difficult to make a good start. But while we should reasonably have anticipated a period marked by the slackness which succeeds strain, no one expected the nightmare succession of crisis after crisis which it has been our lot to undergo. To add to our difficulties, the unrest of the epoch has given wild politicians their opportunity. Act after Act is placed on the Statute Books dealing imperfectly with great issues, and these Acts, known to be faulty, are the subject of fresh amending legislation before the ink is dry upon them. In the special field of building hardly a month passes without some fresh proposal being made, till none of us quite know where we stand.

What used to be described as the freest race in the world are now hardly ruled by their representatives in the House of Commons so much as by a number of swollen Departments, each of which has some colossal programme, the details of which are never fully considered by the general representatives of the people. We are in fact ruled by those who

arrogate to themselves the position of super-men, but whose ability has in most cases been established by no definite steps. Taxation has probably reached its highest possible limit, but there are no signs of a resolute intention of curtailing it by those in authority. And yet it was the people, not the politicians, who bore the brunt of the war, and the people who have to pay for it.

And to add to our other troubles is the great overshadowing gloom caused by the almost universal attitude of Labour, doggedly confining itself to what it conceives to be its immediate interests and absolutely determined to take no thought of the morrow, and which is governed by the narrowest of partisan interests.

It has sometimes been said that the proverb that "honesty is the best policy" is the most cynical of expressions, but we are inclined to hope for better times and a lifting of the clouds which encompass us; not because we are sanguine that Labour will grow more altruistic, but because it is getting increasingly clear that Labour will be compelled by the *force majeure* of circumstance to see that malingering does not pay. Among the unemployed there are doubtless many who are suffering through their fellows' mistakes, but many among the majority may, now they are actually needing work, reflect that it would be wiser for the future to try to help others by doing their best instead of the lowest trade-union limit. If this should be so, there is a silver lining to the clouds, and we may be nearing the end of our troubles. Our hope is that 1921 may mark the bottom of the depression, and that its close may find the nation in a healthier and saner condition of mind.

Previous to the war we should have had a number of newly erected public buildings to mention, together with important competitions and other projected work, while all over the country we should see private houses and business premises going up. To-day we can only point to a few buildings like the Port of London Offices, now nearing completion; the Bush Building, in Aldwych, just begun—with American capital,—and a few of the many projected housing schemes taking shape with a slowness which we should have deemed phenomenal a few years ago.

The London County Council, whose past housing record is an admirable one, and which made housing pay its way, is now forced, under the Government Housing Scheme, to build houses on which there will be an annual loss to the ratepayers and to the nation of £75 a house. If we were dealing with the defective project of some new and badly organised body, we might say it was the result of mismanagement, but such a criticism cannot be applied to the work of one of the best organised and most efficient bodies in the country. The broad fact is that under present conditions building has become a costly and



difficult operation, which only those who are absolutely compelled will resort to. Owners of property are either not repairing it at all or else only doing the barest minimum which cannot be avoided. The result is clear, for if Labour will not reason it must, like a child, learn by experience, which is a slow and often painful process; and until Labour sees that no one class can succeed on the ruins of others we shall have bad times.

Architects who have been badly hit by the war are in a hardly better position now, and it says much

for their endurance and fortitude that they generally face the future with hope and courage. We trust that this year will mark the successful culmination of the campaign for the unification of the profession, and that architects will make a determined effort to promote a real solidarity in the building trade by drawing closer to the great body of contractors, on whom fall so many present burdens in their difficult task of dealing with Labour. Contractors are the architects' best friends and helpers, and to both of them we wish greater success and prosperity.

## Illustrations.

- THE CITY AND PORT OF LONDON. By EDMUND H. NEW. (See page 29.)  
 PRAGUE.—STAIRCASE, FURSTENBERG GARDEN; PALACE OF THE MINISTRY OF FINANCE; OLD PALACE CALLED "HOPFENSTOKN"; CHURCH OF ST. NICOLAS. (See page 25.)  
 THE CENOTAPH, WHITEHALL; WORKING DRAWING. Sir E. LUTYENS, R.A., Architect.  
 L.C.C. BELLINGHAM ESTATE. G. TOPHAM FORREST, F.R.I.B.A. (See page 22.)  
 CROSBY HALL OF RESIDENCE, CHELSEA. C. H. BIDDULPH-PINCHARD, Lic.R.I.B.A., Architect. (See page 20.)

NOTE.—We intended to give a number of memorials in this issue, but are holding them over till next and other weeks.

## Notes and Comments.

### The New Telephone Charges.

We give an exceedingly well-worded and vigorous letter on the subject of the new telephone rates, which are now causing widespread annoyance among all those interested in business, and are likely to prove a serious handicap to traders throughout the country. In a way we are pleased to see them, for scales will sink if a sufficient weight has been placed in them, and we believe that moment is now near if it has not actually been reached. First we have the continuance of the Excess Profits Duty, which introduced as a war measure has been continued and increased in years of peace against the advice of all financial experts, and which is now causing unemployment and pressing heavily on the trade of the country. Then we suffer from the result of the Government control of mines and railways, which in private hands were better run than they have ever been under control, which produced revenue and cost the taxpayer nothing. Instead of which we have now decreased facilities, higher prices, and deficits which have to be met out of taxation. Then, too, we have instead of the automatic supply of housing wants which met our requirements before 1910, a costly and impossible system, the breakdown of which is becoming potent to all. We have, it is true, many new departments, the cost of which is great, while the advantages if they exist are microscopic. So that the scales are almost weighted enough to sink, and when they do we may have the relief which most of us want.

### The Building Gild Contract.

MR. S. G. HOBSON writes to the "Manchester Guardian" on the subject of the Building Gilds. He says he cannot discuss the subject with Mr. Easten as he does not use words in the same sense. The payment of £40 a house is, he says, not profit, but a specific payment made for a purpose known as continuous pay to cover wet time, sickness, and public holidays, and is regarded by the Building Gild as a "trust." To our mind this does not meet Mr. Easten's argument, for if A pays his men under circumstances in which B does not, and if such payments are made not in respect to work done but for the benefit of those employed, this amount must be regarded as distributed profit, whether the funds from which payment is made are kept in a separate banking account or not. Mr. Hobson complains that the Ministry of Health are treating the Gilds unfairly by giving them only a few contracts, but in spite of the enthusiastic statements about progress made at Bedwelty, the Ministry of Health may be merely prudent in waiting until the work is finished and accounts audited. We have heard of premature enthusiasm and subsequent disappointment before now.

### Mr. Robert Smillie and Housing.

MR. ROBERT SMILLIE has been addressing the Scottish Labour Housing Association in his usual manner. He finds that a thousand years ago some of the cave dwellers were more comfortably housed than many workers are to-day. We had not imagined that the cave dweller was in existence at the time of the Norman Conquest, but as Mr. Smillie is doubtless a geological expert, we must bow to his opinion. He finds it remarkable that the workers who live in slums build palaces and mansions for the rich, but we never heard that they did so out of pure altruism, but imagined they did so because they were paid for their services. He believes the authorities are doing their best, but he also warns them that no housing reformer can be satisfied with the kind of houses they are building. As far as we can make out from his utterances, a really satisfactory housing policy would include provision for housing all the workers in the palaces and mansions of the rich, who, according to him, have no rights to their own property. We should like to see Mr. Smillie and his friends sent to the only free country in Europe—Soviet Russia—even at the expense of the British taxpayer, but failing this solution it is pleasant to know that men are mortal, and that even Mr. Smillie cannot live for ever.

### Exaggerated Estimates of Housing Needs.

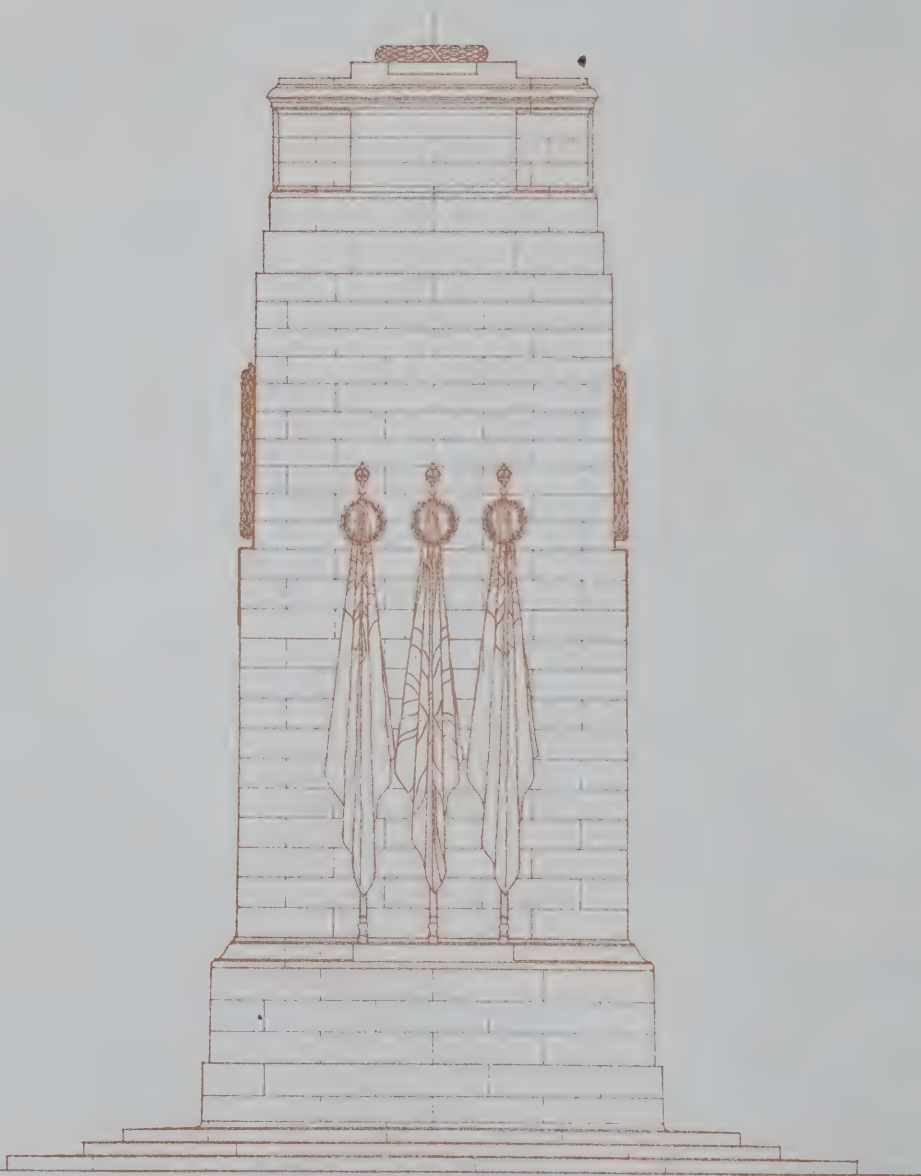
A SPECIAL correspondent of the "Yorkshire Post" points out that housing requirements have been greatly exaggerated—an opinion which we believe, on investigation, will be found to be a fact. We were told after the Armistice that 800,000 houses were needed, though Dr. Addison put the shortage down at 500,000. The eighty-second annual report of the Registrar-General provides figures proving that both the above figures are much too great. A net addition of 140,000 houses would maintain the 1911 average of the number of persons per house. As contracts have been signed for 160,000 houses, the 1911 average will be exceeded. In other words, on the completion of these houses there should be no reason why the Ministry of Health should not either go out of business or cease from harrying the building trade and making demands on the financial resources of the country. And then, if Labour in the future intends to charge Labour heavily for its services, Labour should be called on to pay its own bill, for, after recent experiences, few can have much sympathy with the poor working man, who must lie on the bed his own sloth and unreason have prepared for him.



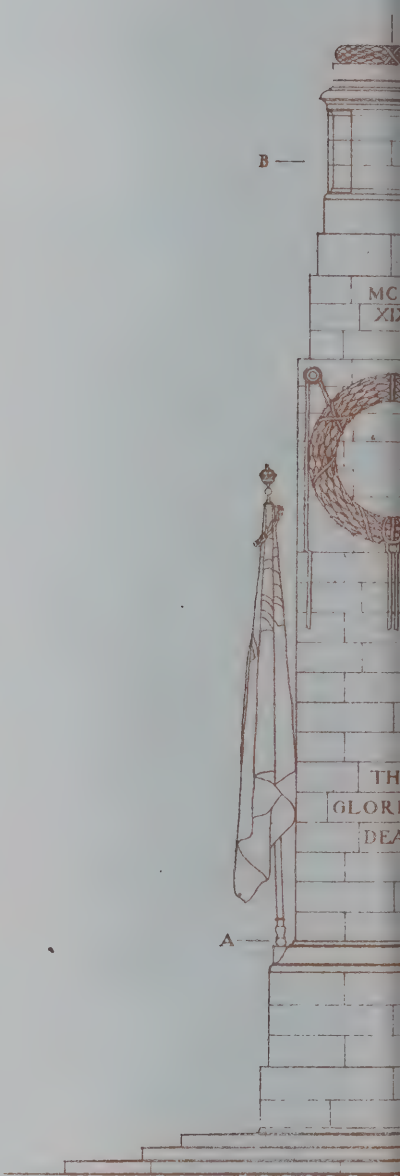




THE CENOTAPH.



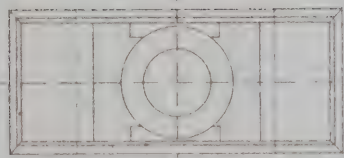
FRONT ELEVATION



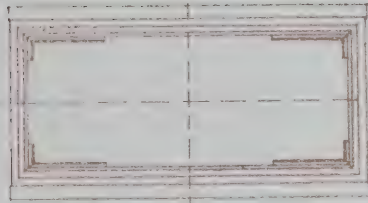
SIDE ELEVATION



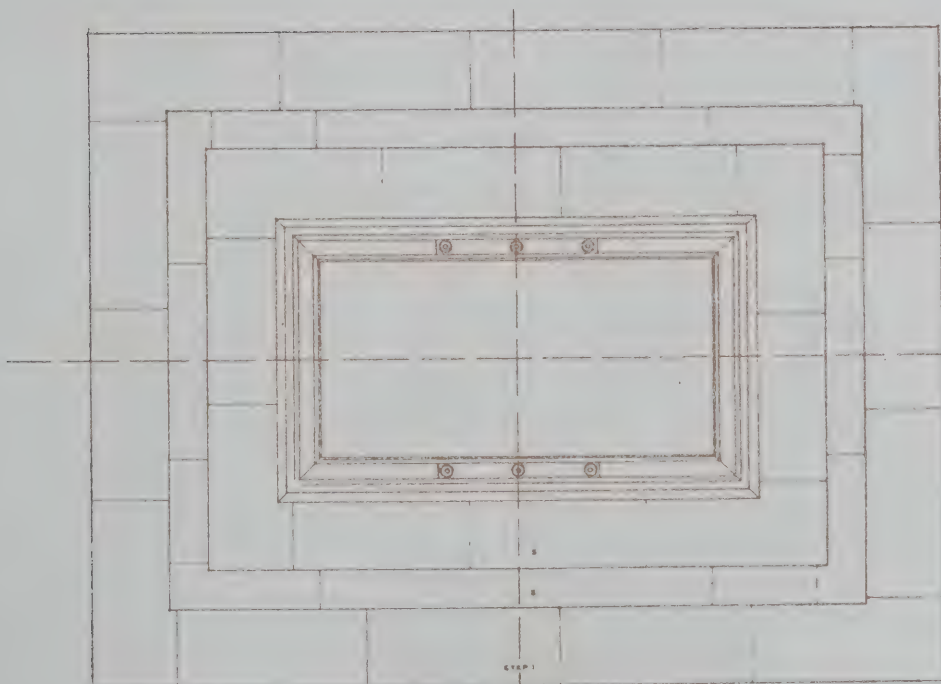
JANUARY 14th, 1921.



PLAN LOOKING DOWN ON TOP



PLAN AT B B



PLAN AT A A

EDWIN L. LUTYENS, R.A.  
17 QUEEN ANNE'S GATE  
WESTMINSTER S.W.1. NOV. 1920.

PHOTO-LITHO. SPRAGUE & CO. LTD. 69 & 70, DEAN STREET, SOHO, W.

WORKING DRAWING.

A.S. ARCHITECT.







## London Art Galleries.

(All Rights Reserved.)

ONE of the most important features in London exhibitions of the New Year has been the inaugural exhibition of the newly-formed "Society of Graphic Art" in the Suffolk Galleries, belonging to the Royal Society of British Artists, with Mr. Frank Brangwyn, R.A., as its first president. A notice of the new Society and its aims by Mr. A. J. Finberg, quoted on the first page of the catalogue, expresses the hope that this Society's present exhibition may do "something to reinstate in the estimation of the public the dignity and importance of pure draughtsmanship, an essential, if not the essential factor in all true art." This sounds as if British graphic art was being overlooked and languishing from neglect; though to our credit on this score we already have several numerous and fairly flourishing societies—the newly-formed Society of Wood-Engravers, the Royal Society of Painter-Etchers, in lithography the Sennefelder Club, the Society of Graver-Printers in Colour, and, if I mistake not, the Pencil Society—all of which are directly based on drawing and correct design. At the same time, especially with certain existing tendencies in modern art, we cannot insist too strongly on sound knowledge and treatment of structural form as the basis of the arts of design; and from this point of view we welcome such a Society as this of Graphic Art, which includes within itself pencil work, black-and-white, lithography, wood-engraving, and etching.

On the staircase as we enter we see first of all a superb design of a windmill by the new Society's President, which is, in fact, the study for the poster of this exhibition, while to Mr. Garth Jones is due the vigorous head in brush and ink which is reproduced as the design for the Society's catalogue cover. In the first room we commence with aquatints, in which Madeline Green ("Covent Garden") and W. Westley Manning ("Landing herrings, Tarbet, Lochfyne"), as well as Sidney Long ("The Passing Storm") show good work; and come on the next wall opposite to chalk and charcoal, in which I noticed Dorothea Landau's "Danæ" (red chalk), "Girl's head," in green chalk line, Frank Gillett's "Old Actor," and Borough Johnson's masterly charcoal study of an "Old Fisherman's Head." The next room contains some work by the "Punch" artists Gunning King and E. T. Reed, and notably a choice though small memorial exhibition of drawings by the late F. H. Townsend, who was for fifteen years Art Editor of "Punch," and was one of the original members of this Society. We come to the lithographs next in the large gallery, where, too, is the President's powerful study in coloured chalk of "The Stations of the Cross." Here, too, are to be found some of Charles Shannon's well-known lithographs, including a self-portrait, Thea Proctor's "Bathers," which has a certain charm, Borough Johnson's characteristic "Gipsy-women," Elsie Henderson's charcoal lithographs of lions, and a delightful portrait head in the same medium of "Lady Stoker" by Flora Lion, which I prefer to her "Viscountess Clancarty."

Among the drawings of architecture in this large gallery I noticed Malcolm Osborne's "Admiralty Archway," which is to my mind better than W. Monk's ambitious but over-detailed "Rouen Cathedral—West Front," the chalk-and-wash study by E. A. Cox of "Toro Cathedral in Spain," which is excellent, and the "Newcastle-under-Lyme" (pen-and-wash) of that fine architectural draughtsman, Mr. Hanslip Fletcher. The room beyond shows Sir Reginald Blomfield's cleanly finished pen-and-ink drawing of a "Farmhouse near Hoorn"; and with this I may mention F. L. Grigg's pencil drawing of "The Rood Tower, Lincoln."

On the whole the new Society's exhibition, which contains very nearly 600 original contributions, is strongest in pencil, pen-and-ink, and wash, and shows

very well also in lithography, but less so in the department of etching. I am delighted to find the pencil work so well represented, and hope this will remain so in future exhibitions: the pencil is the most accessible and most expressive of tools, and Ruskin's advice was good when he said, "Keep the pencil always going."

The Pastel Society is now holding its winter exhibition in the Royal Institute Galleries in Piccadilly. This wonderful art of the eighteenth century, of which Maurice Quentin de Latour was such a masterly exponent, lives in our time and develops, though on its own lines. We do not see here—and perhaps never shall see again—such brilliant work in this particular medium as Latour's "Tête Penchée," or his "Maréchal de Saxe" or "Dauphin of the Louvre"; but on the other hand, the possibilities, which I have suggested before this, of pastel in landscape art seem to be getting recognised and explored in the work here of William Redworth ("A Milking Shed," and "Fingest Church"), of J. Littlejohns, R.B.A. ("Autumn in Wharfedale," and "Algiers"), of Arthur Black, R.O.I. ("Beechey Knoll"), of Leonard Richmond, R.O.I., R.B.A., in his "Glimpse of the Malvern Hills," and Davis Richter, R.I., in his admirable "Chesnuts of Quimperle."

Perhaps the nearest to the old technique of the pastelist's art of earlier days—which remains, however, in portraiture the best—is to be found here in the work of William Ranken, V.P., R.O.I.—notably in his portrait of Mrs. Ernest Thesiger; and in figure work near this last in the pastels of McLure Hamilton, who besides his "Margot" (who seems to pursue us everywhere in these days) has a series of studies of "Backs"—presumably of "danseuses," though I understand that, apart from "Chu Chin Chow," the present ball-room costume offers ample opportunity for dorsal analysis. In any case the artist has done justice here, keeping his touch delightfully free and slight, to the play of curve and line created by the muscles at work over the scapula beneath, in his rather sparsely covered models; while a contrast of these same muscles in perfect repose may be seen in this same room in the "Dolores" of Isaac Cohen, R.O.I., whose portrait and work has the brilliancy which pastel treatment needs and offers.

A very choice little exhibition opened last week at the Goupil Gallery, including paintings by Degas, Boudin, Gauguin ("Tahitienne"), and Whistler, with a selection of drawings by Carrière.

S. B.

## Art News of To-day.

It was a surprise at the close of last week to enter Messrs. Christie's well-known sale-rooms and find, instead of paintings, sculpture, or silver, an atmosphere which suggested that of some Eastern mosque. Carpets were everywhere, upon the floors and upon the walls; and these were Eastern carpets of the very finest quality, and rugs from Persia, Bokhara, and Ispahan, being the property of Lieut.-Col. J. S. Ruston, of Lindum House, Lincoln, of the late Stanislaw Krajewski and other owners, to be sold on Monday last.

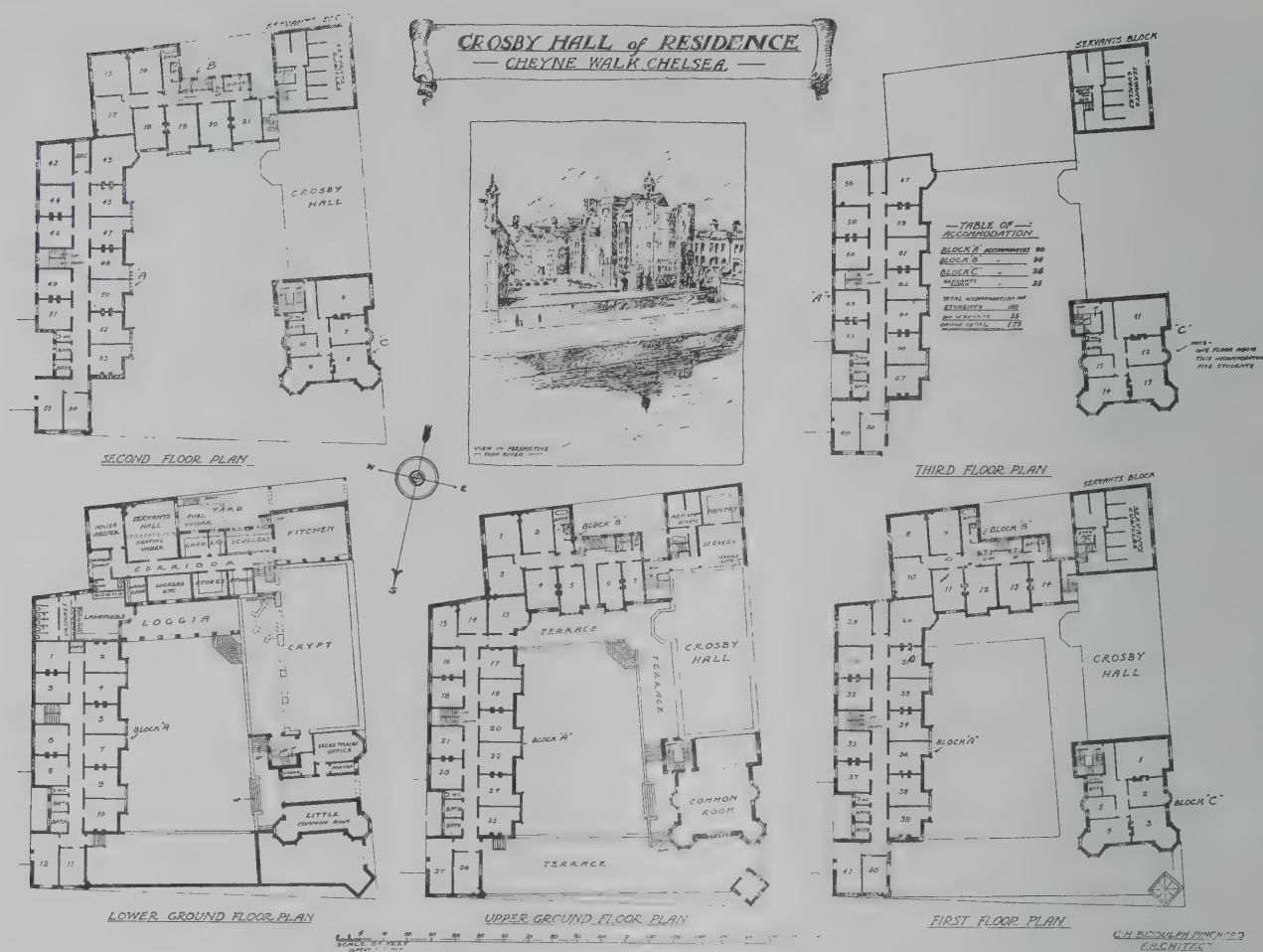
Such a collection as this, consisting of 175 pieces, many very large, must be a rare event even at Christie's. We admired especially a Persian rug (No. 74) with arabesque foliage on ground of ruby and buff, a Persian rug with red panel on ivory centre, and a large Persian silk carpet, with foliage and arabesques on red ground, with striped border of red and pale green. On the day following, January 11, there was sold Mr. E. W. Roper's Japanese lacquer and ivory carvings, with the late Lord Faber's Chinese carvings in jade and hardstone.

A sensation was caused last week by the theft from the strong-rooms of the Hecksher Banking House at Berlin of a landscape painting by Rembrandt, valued at 8,000,000 marks. This painting, measuring 19½ inches by 24 inches, and depicting a thunderstorm, is believed in Berlin to be on its way to England.



## Crosby Hall Settlement Scheme.

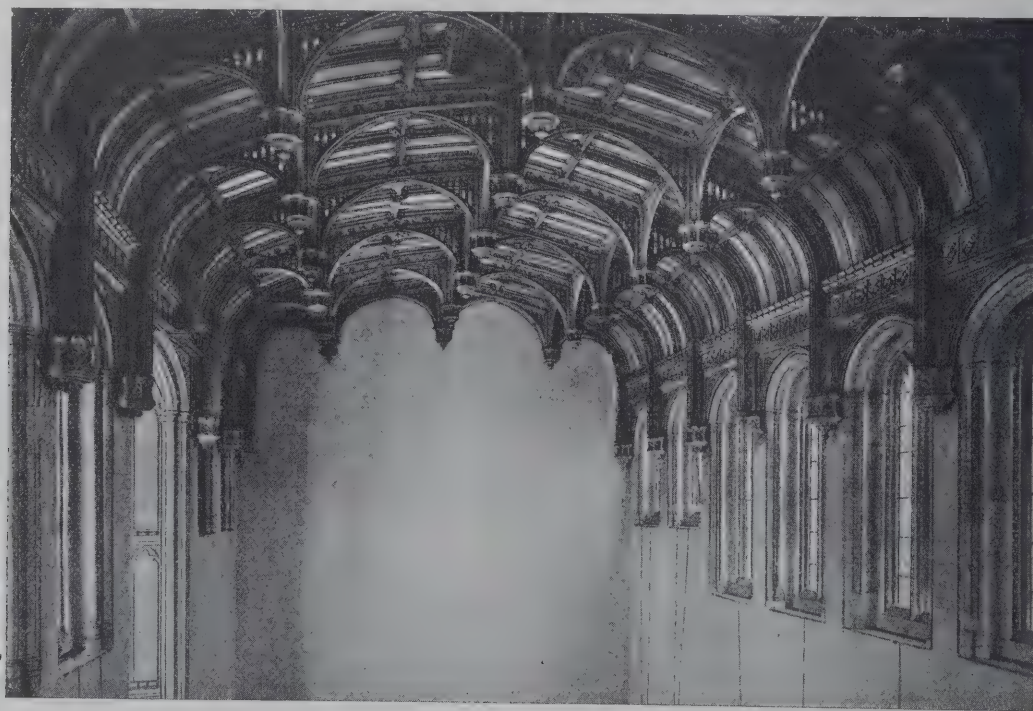
(See Inset Illustrations.)



CROSBY HALL SCHEME. C. H. BIDDULPH-PINCHARD, Lic.R.I.B.A., Architect.]

WE illustrate a very interesting scheme which has been proposed, in which Crosby Hall, which was removed to Chelsea in 1910, forms the central college hall for a group of hostels intended to accommodate Colonial and American students who are resident in London. The proposal is illustrated by plans and views of the design.

which has been prepared by Mr. C. H. Biddulph-Pinchard, and the total cost of the scheme is estimated at £200,000. An appeal for funds to provide this amount, together with an endowment of £50,000, is being made, the University and City Association having given Crosby Hall and the site on which it now stands on condition



CEILING AT CROSBY HALL, CHELSEA.







THE ARCHITECT, JANUARY 14th, 1921.







Grosby Hall  
Residence -  
Chelsea  
C.H. Biddell, Architect

Handwritten note: H. B. Biddell, 1890

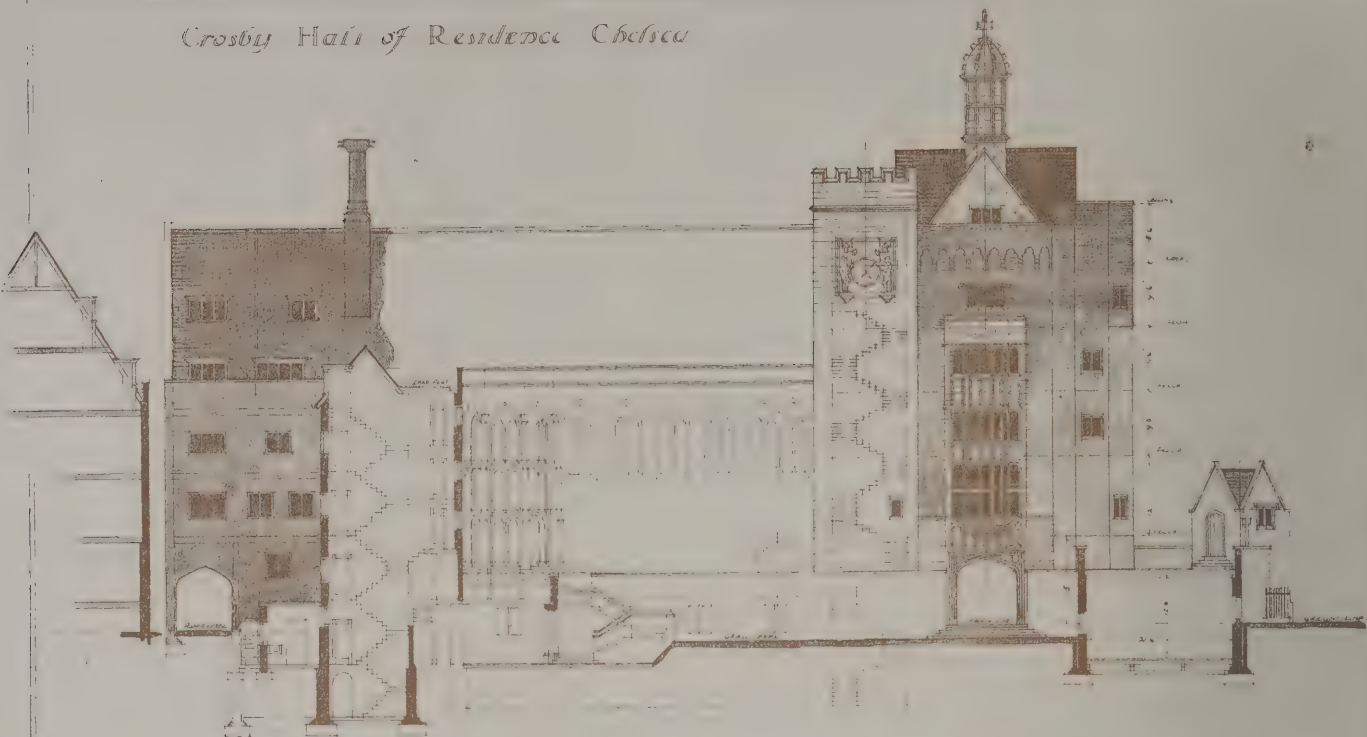








Crosby Hall of Residence Chelsea



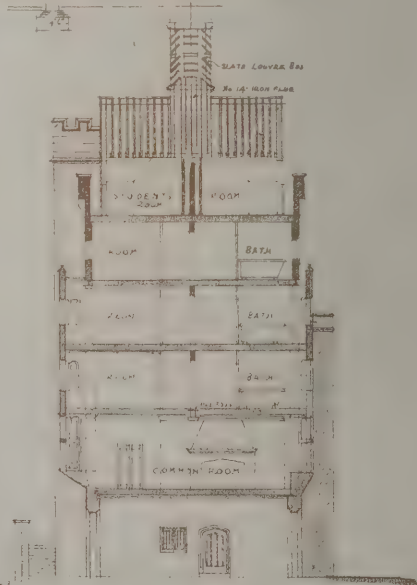
West Elevation



North Elevation



Elevation to Mores Garden



Section through Tower

10 5 0 10 20 30 40 50 FEET

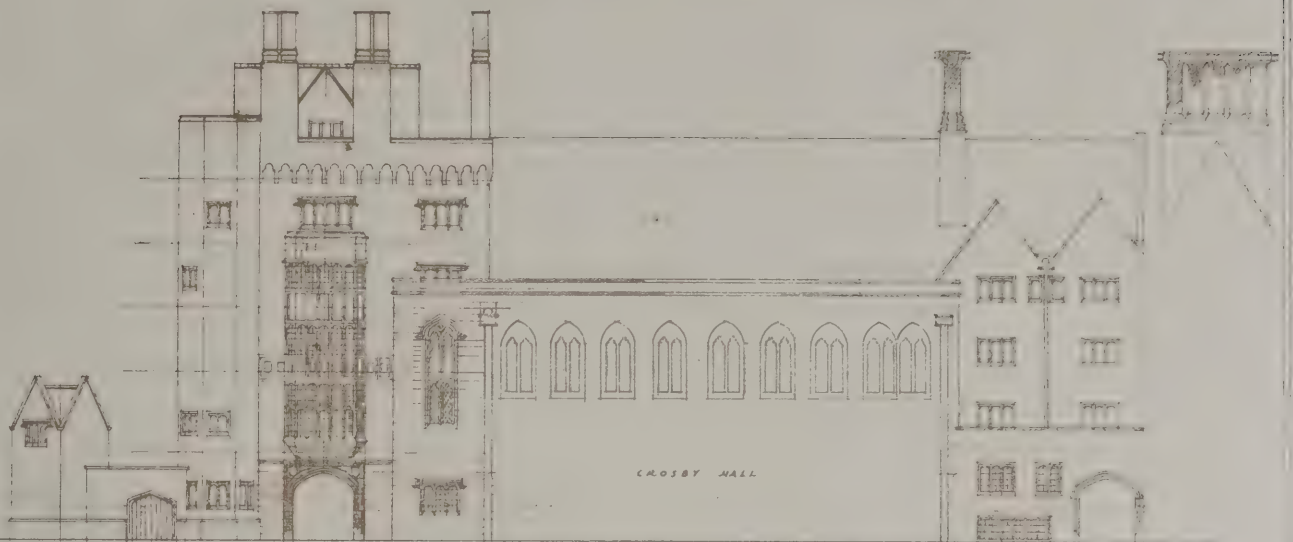
INK PHOTO, SPRAGUE & CO LTD 69 & 70, DEAN STREET, SOHO, W

CROSBY HALL OF RESIDENCE, CHELSEA.

C. H. BIDDULPH PINCHARD, ARCHITECT



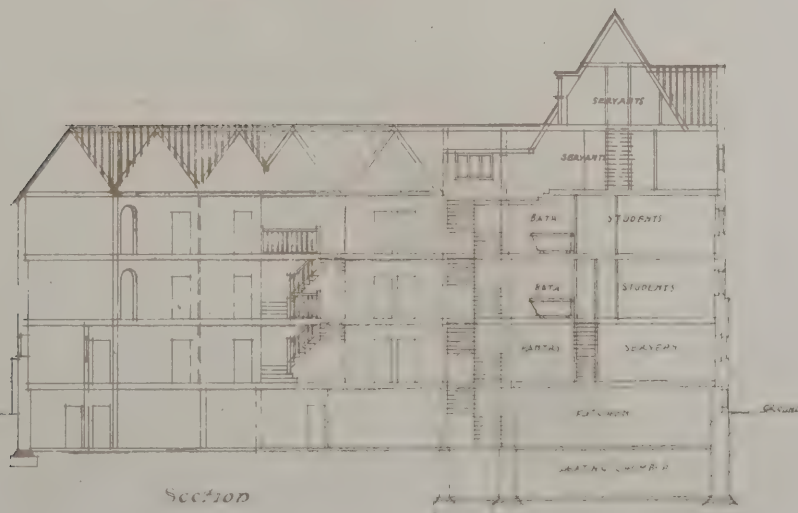
*Crosby Hall of Residence Chelsea*



*Elevation To Donvers Street*



*Elevation To River*



*Section*

"INK-PHOTO" SPRAGUE & CO LTD 69 & 70, DEAN STREET, SOHO, W.

CROSBY HALL OF RESIDENCE, CHELSEA.

C. H. BIDDULPH PINCHARD, ARCHITECT







CROSBY HALL, CHELSEA.

that the necessary funds for carrying out the scheme shown are raised within a specified time by the World Association for Adult Education, to the Hon. Treasurer of which body subscriptions should be sent at their offices, 13 John Street, Adelphi.

The proposals of the World Association are as follows:—It is proposed to construct residential quarters on the ground adjacent to Crosby Hall in the first instance for students coming from the British Dominions, from India, and from the United States of America, together with a proportion from the British Isles, so that full interchange of views and experience may be promoted.

Crosby Hall itself will be the centre of the whole institution, and will serve the same purposes as are served by the Halls of Colleges at Oxford and Cambridge. To it students will be welcomed who are not fortunate enough to secure admission to the hostel but who may find rooms in the neighbourhood. To construct a building of the dimensions and general character of Crosby Hall to-day would, it is estimated, cost not less than £50,000, while the exquisite carvings of the roof, and other work of the past age are, of course, irreplaceable national treasures. Endowed with a structure of such historic associations,

the Crosby Hall of Residence will compare not unfavourably with the old colleges of Oxford and Cambridge. The site, for which the University and City Association hold the lease, which has 500 years to run, possesses also historical interest from the many illustrious associations of Chelsea itself—with Erasmus, Carlyle, Rossetti, Turner and Whistler. It originally formed the garden of Sir Thomas More's Chelsea house. Facing the Thames, the site on Cheyne Walk offers excellent facilities for rowing, while across the river lies Battersea Park, with its opportunities for walks and recreation.

Our illustrations explain this very interesting scheme, which will, we hope, be carried out without much delay, as it will fill a want which exists; although the location of the University of London, now decided, will place it further off than if South Kensington had been selected as the locality for the new buildings.

---

THE Right Hon. the Earl of Radnor has consented to accept the office of President of the thirty-second Congress of the Royal Sanitary Institute, to be held at Folkestone from June 20 to 25, 1921.

# London County Council Housing—Bellingham Estate.

(See Inset Illustrations.)



THE London County Council, in July 1919, approved a comprehensive scheme for the provision of dwellings, both within and without the County of London, and also for the improvement of housing conditions in the county.

Since that date the scheme has been modified, and the Council is to provide within five years of the approval of the scheme by the Ministry of Health not fewer than 29,000 new dwellings (exclusive of those to be erected on the cleared sites of insanitary areas) with accommodation for approximately 145,000 persons.

As to the cost of the complete scheme, the following figures, put forward in July 1919, were the best estimates

that could be made at the time, but in view of the increasing cost of labour and materials, as well as to variations in the scheme, it will be necessary for these estimates to be altered:

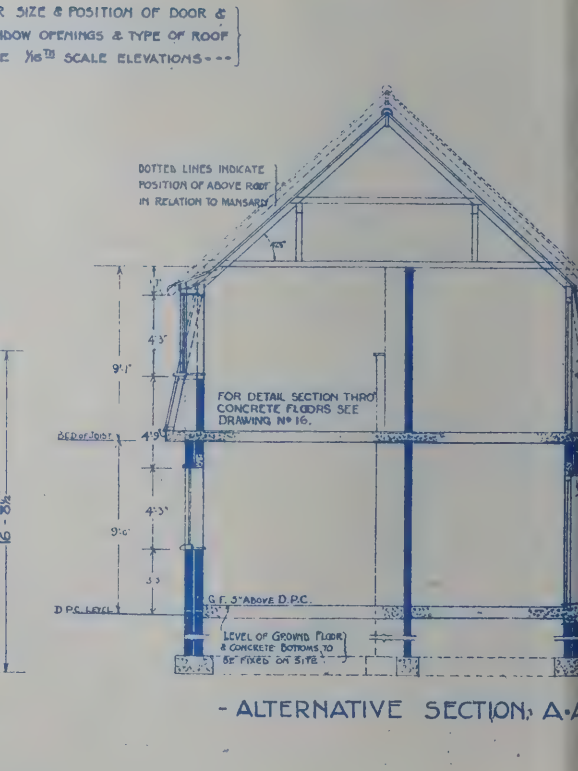
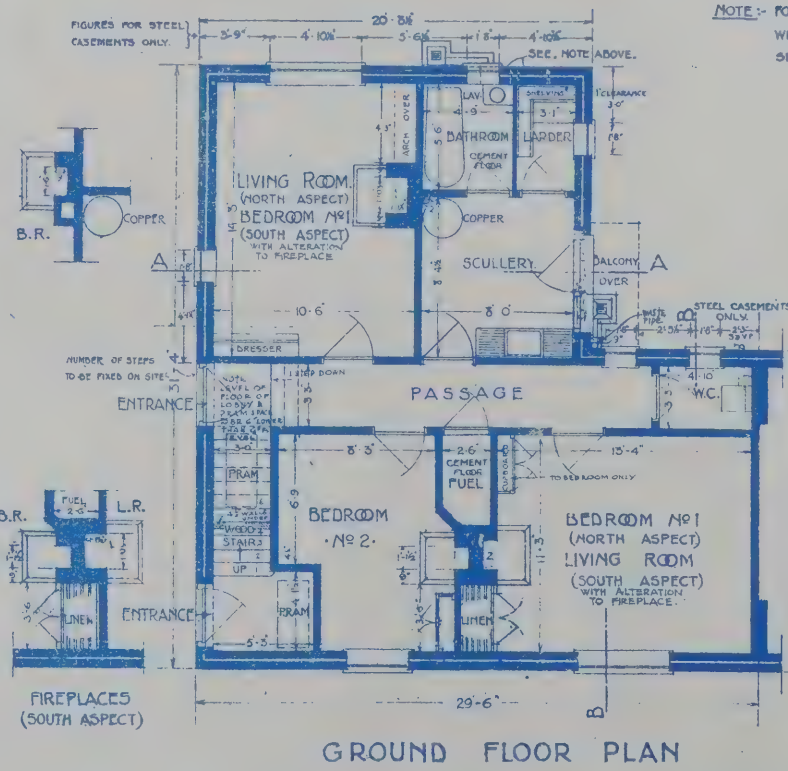
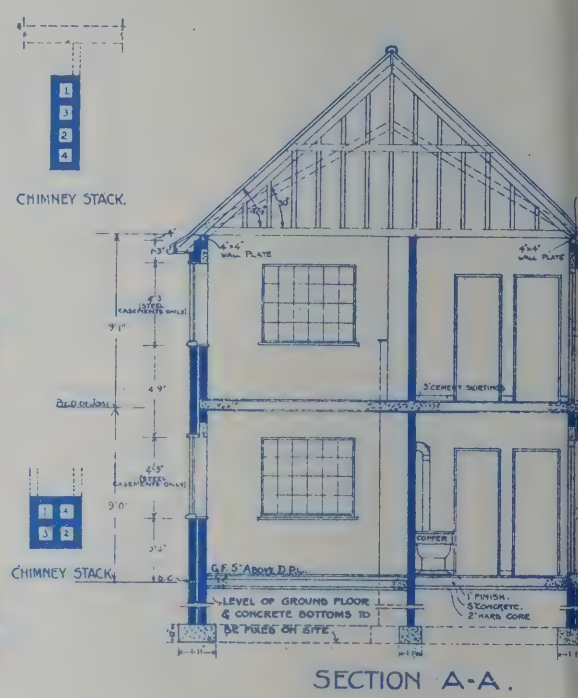
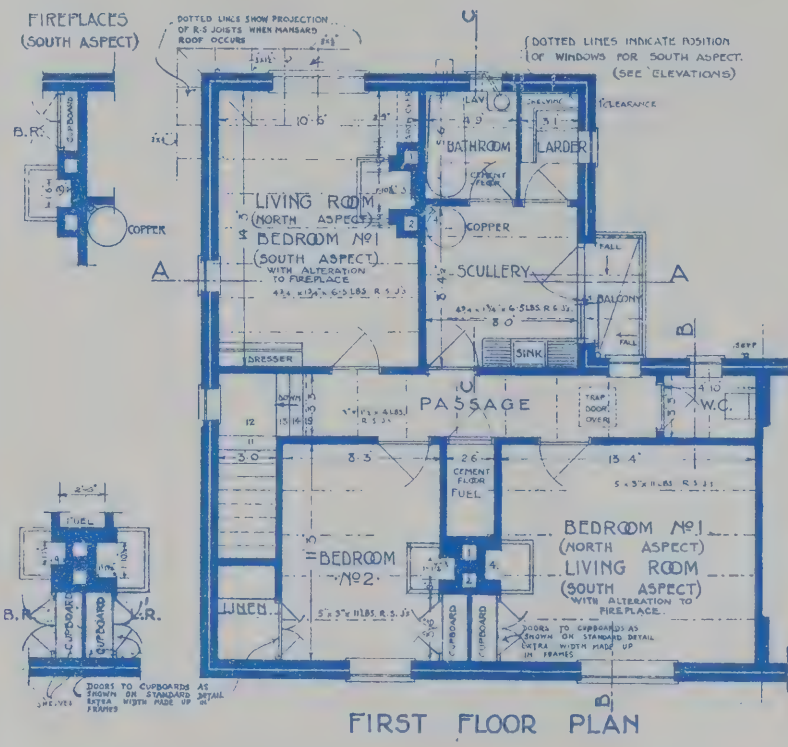
## (a) CAPITAL OUTLAY.

	£	£
Estimated cost of 29,000 cottage dwellings, including land, laying out, and buildings, from .	23,560,000 to 24,820,000	
Slum clearances . . . . .	2,000,000	2,000,000
Rehousing on cleared slum areas . . . . .	3,370,000	3,370,000
Total, from . . . . .	£28,930,000 to 30,190,000	



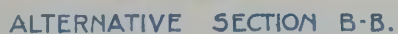


L.C.C.-Bellingham Estate—  
TYPE 'M' (END) THREE ROOM FLATS.  
ALL ASPECTS.





18



*E. J. McMahon*  
ARCHITECT to the COUNCIL







*L.C.C. - Bellingham Estate.*



No 9



No 55

No 46



No 12

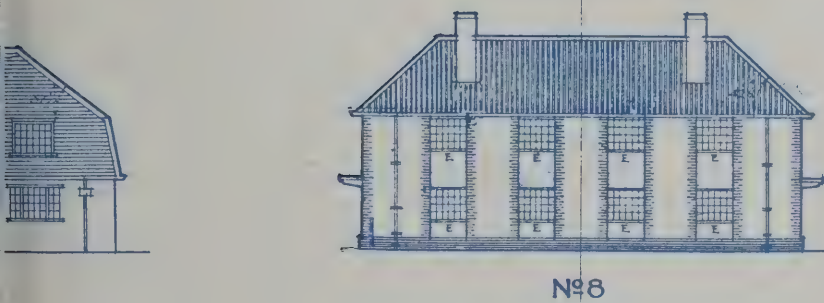
No 13



ELEVATION



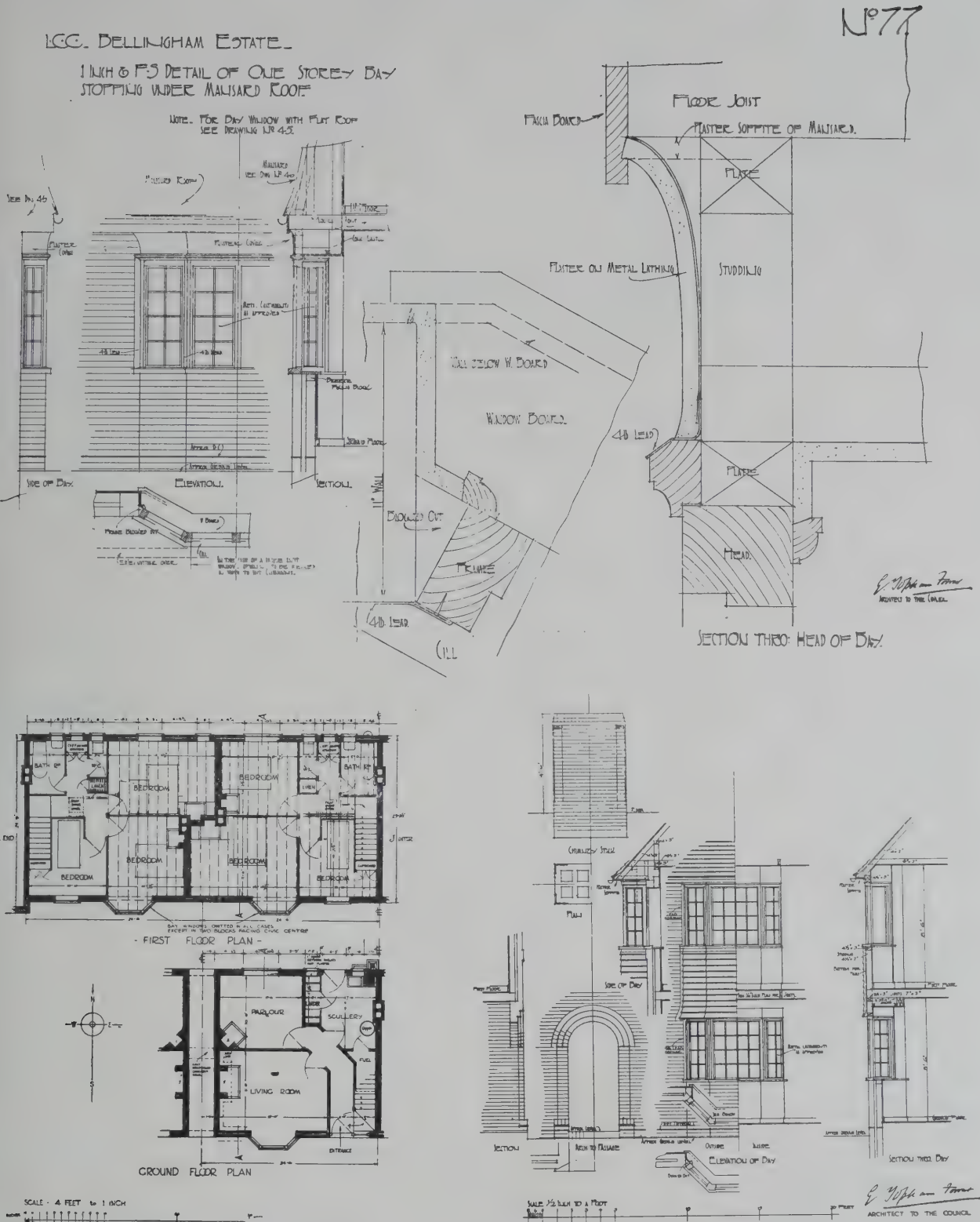
JARY 14th, 1921.



*E. J. O'Brien*  
ARCHITECT TO THE COUNCIL.







TYPE "J" INTERMEDIATE FIVE-ROOM COTTAGE (Revised), SOUTHERLY ASPECT.

These figures are exclusive of the cost of purchasing land beyond that actually to be developed.

(b) FINANCIAL RESULTS.

	£	£
Estimated annual deficit on erection of 29,000 cottage dwellings, from		
Estimated annual deficit on block dwellings	108,527	108,527
Total annual deficit, from	£1,124,172	to 1,200,142

The 29,000 houses are to be provided on those estates belonging to the Council which were partly developed before the war, and on new estates which are now being purchased.

The illustrations which we publish show the lay-out and types of some of the houses, as also the design of a school to be erected on one of these new estates—viz., Bellingham.

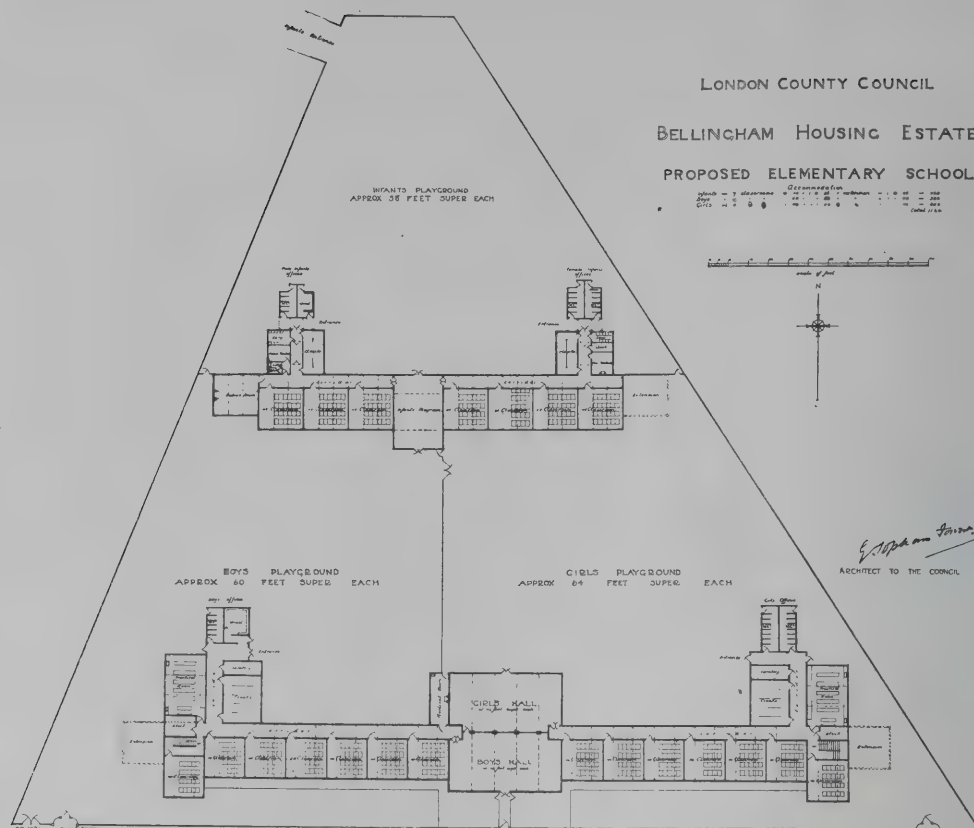
The original scheme provided for the acquisition and development of "the whole or part of a site or sites of

from 150 to 180 acres in the south-eastern district for the erection on a part thereof of not fewer than 1,750 houses, to accommodate not less than 8,750 persons."

As the result of careful investigation, the Council decided to acquire for mixed development about 250 acres of land at Bellingham, in the Metropolitan borough of Lewisham. The site is therefore somewhat larger than was originally contemplated, but the Council is satisfied that the acquisition of the total area will enable a more complete scheme of development to be undertaken than would otherwise be possible.

The site lies mostly between the Mid-Kent branch of the South-Eastern Railway and a branch of the London, Chatham and Dover Railway. It is intersected by South-end Lane, which leads on one side into Bromley Road—along which the Council's tramways are laid and motor-omnibuses run—and on the other side towards Bell Green, where there is also a service of motor-omnibuses. There are three railway stations near or adjoining the site—viz., Beckenham Hill, Bellingham, and Lower Sydenham.

The portion of the estate to the south of Southend



Lane, about fifty-two acres in extent, has been reserved for the erection of houses other than those which rank for State aid. A secondary school is also contemplated.

The lay-out of the estate provides for an imposing central open space of  $2\frac{1}{4}$  acres, with sites reserved for public buildings, such as churches, chapels, &c., and a main avenue 60 feet wide runs north and south through the estate. Nine and a-half acres will be reserved for a playing field, and about twenty acres, at the rear of the houses, for allotments.

Two large elementary schools are included in the scheme, and a site for shops has been reserved in the avenue leading to Bellingham Station.

The housing scheme provides for the erection of 2,056 cottages and flats, of which there are about twenty types to suit the different aspects, &c.

Special steps have been taken in designing the houses to prevent anything in the nature of monotonous repetition, and the various types of houses have been carefully planned with this object in view.

The following are the approximate numbers of dwellings proposed:

- 366 five-room cottages.
- 1,196 four-room cottages.
- 322 three-room cottages and flats.
- 172 two-room cottages and flats.

The contractors for the development of the estate, including the construction of the roads and sewers, cottages, and a bridge over the Ravensbourne River, are the well-known firm of Sir Robert McAlpine & Sons.

Operations on the site were commenced in October last. Excellent progress has been made, and at the present time, notwithstanding the general shortage of skilled men, about 1,200 workmen are engaged on the site.

The contractors are showing great zeal in pressing forward with the work, and many houses in the first section are already roofed in.

It is expected that a large number of houses will be ready for occupation this year, and hopes are entertained of completing the estate in 1922.

The elementary school illustrated consists of three departments (boys', girls', and infants'), all of which are on one floor only.

In view of the present-day economic conditions, and the desire to afford facilities for open-air classes, the school is of the pavilion type, and approximates, as far

as educational exigencies admit, to the lines of a sanatorium.

The whole of the class-rooms have a southern aspect. They are of light construction, which can be altered, adapted, or even demolished with a minimum of expenditure. They will be built in some form of slab construction, rough-casted on the face, the intention being to have these rooms as simple as possible, without any glazed bricks or dados on the inside.

The whole of the window area will be made to open in such a way, as to provide practically open-air classes when climatic conditions allow.

All cloak-rooms will be cut off from the school and have cross-ventilation.

In pre-war schools the usual practice was to place the offices in outside buildings, and in wet weather the children had to cross the playground to reach them. This will be obviated in the school illustrated. The offices will be attached to the main building, but will be entirely separated from it by a cross-ventilated lobby. Modern sanitation has rendered the complete segregation of the offices no longer necessary.

The playgrounds, which are nearly double the minimum area laid down by the Board of Education, are of good shape and suitable for the playing of organised games.

The lay-out of the whole estate, including roads, sewers, houses, and schools, has been designed by Mr. G. Topham Forrest, F.R.I.B.A., F.G.S., architect to the Council.

THE Royal Scottish Academy are to hold a statutory general assembly on February 9 for the purpose of electing three painters and one architect to the rank of Academician.

MR. ALFRED DEBURY, R.A., A.R.C.A., has been given the commission for the War Memorial proposed to be erected in Eldon Square, Newcastle-on-Tyne. It is hoped the monument will be completed for unveiling on Armistice Day 1922.

MESSRS. J. S. FRY & SONS, LTD., are understood to be considering a scheme for the development of the Hams estate at Keynsham on lines comparable to those adopted by Messrs. Cadbury Bros., Ltd., at Bournville.

THE expense of carrying out the Grampian electricity supply scheme is estimated by Messrs. Mott, Hay & Anderson, the engineers for the project, at £4,060,000. For the Lochaber water-power scheme the engineers, Messrs. C. S. Meik & Buchanan and Messrs. Alexander Binnie, Son & Deacon, put the cost at £2,962,000. In both cases the purchase of land is included.





THE ARCHITECT, JANUARY 14th, 1921.



"INK PHOTO" SPRAGUE & CO LTD 69 & 70, DEAN STREET, SOHO, W.

PRAGUE: STAIRCASE, FÜRSTENBERG GARDEN.



THE ARCHITECT, JANUARY 14th, 1921.



PHOTO: SPRAGUE & CO. LTD 69 & 70, DEAN STREET, SOHO, W.

PRAGUE: PALACE OF THE MINISTRY OF FINANCE.







THE ARCHITECT, JANUARY 14th, 1921.



INK-PHOTO. SPRAGUE & CO. L39 69 & 70, DEAN STREET, SOHO, W.

PRAGUE: OLD PALACE CALLED "HOPFENSTOKN."





"INK-PHOTO" SPRAGUE & CO. LTD. 69 & 70, DEAN ST. E. T. SOHO, W.

PRAGUE: CHURCH OF ST. NICOLAS.





## Prague.—II.—Prague of the Middle Ages and of the Baroque.

By Selwyn Brinton, M.A.

(All Rights Reserved.)



PRAGUE.—THE OLD TOWN HALL.

In a preceding article published last week I have given some account of that wonderful Palace-Fortress of the Hradcany, which might be called the Acropolis of Prague, which dominates the ancient city and includes within its precincts a vast palatial structure, a cathedral, with several churches and detached fortresses. In the present article I shall treat of the mediæval city of Prague, which is of surpassing interest; and then give some account of that baroque city, which grew up under the Catholic power in the 17th century, and which has its own character.

First of all here we must recall the historic fact that Bohemia, till the Armistice only a province of the Austro-Hungarian Empire, had been once herself a great mediæval nation, beside whom Austria might seem a later intruder, and a nation which, under her great King-Emperor Charles IV., was alike a great military power and a centre of European culture.

These very centuries which saw the highest development of Bohemia were also those when the wonderful Gothic art was diffusing itself from France into central Europe; it found an immediate welcome in Prague, and such monuments as—besides and apart from Hradcany and the Cathedral of St. Vitus—the old Town Hall and the adjacent Tyn Church, the richly decorated gate, one of the few remaining relics of the fortifications and their eight gates which guarded the city, known now as the Powder Gate, the towers which guard the bridge of Charles IV., and that noble bridge itself belong to the Gothic period and speak eloquently of its inspiration.

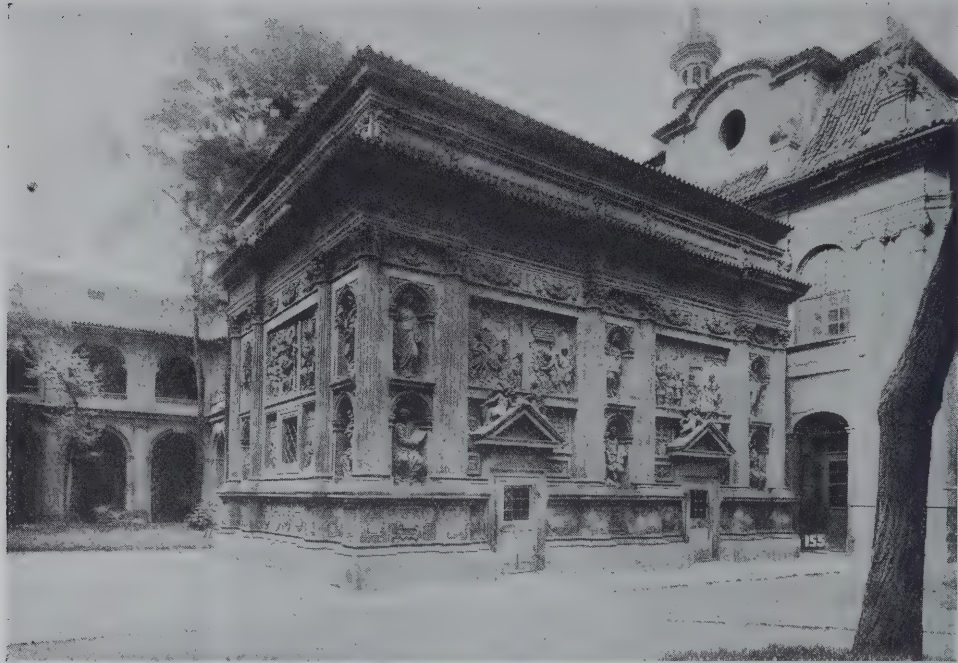
The Town Hall itself, in the great square of the old city, had been commenced for communal purposes in 1338, but was subsequently and repeatedly enlarged and extended, the last additions being those of Bergmann, still however in the Gothic design, in the years 1838-1848. A good example of the earlier Gothic work is the Oriel Chapel beneath the great tower, which dates from 1381, while the main entrance, still Gothic in character, is much later. Very interesting and of early design is the ancient astronomical clock, constructed by Magister Hanus in 1490, and built into the wall in a very beautiful Gothic framing and canopy. Up till the 18th century this was considered one of the wonders of the world, for besides the division of time for the twenty-four hours

it possessed a complete calendar, including leap-years, and indicated the planets and rising and setting of the sun and moon. As the old clock strikes the hour the figures of Christ and his Apostles emerge at the windows over the clock, and generally find a little circle of sight-seers waiting their arrival. The Old Council Chamber



REFECTORY AT SKAKOV, PRAGUE





PRAGUE.—CHURCH OF LORETTO.

of the Town Hall belongs to the 15th century, and its painted ceiling, wainscoating, and coats of arms of the ancient guilds are of that time, dating in some cases from Rudolph II; while the painted wooden ceiling of the adjoining Municipal Hall dates from 1648. The great Assembly Hall now used for municipal gatherings is really modern, finished in 1879, and rearranged in 1911, with some fine canvases by Brosik depicting the reformer John Huss before the Council of Constance, and the election of George of Podebrad as King of Bohemia.

It is, in fact, impossible to follow either the art or architecture of Prague without some knowledge of the religious differences which tore to pieces her internal harmony, and focussed in this old City Square, now dominated by that ascetic figure of the great reformer.

At the beginning of the 15th century the movement in favour of religious reform was steadily gaining ground; and it is an interesting fact, brought to my notice by my late friend Mr. James Baker, who was all his life a true friend to Bohemia, that the earliest impulse in that historic land of reform came from an Englishman. Thus from Wycliffe the sequence is direct; but it found its national leader in John Huss. Huss was a man of learning, character, and great eloquence. Born about 1373-5, he studied in Prague University, became Magister in 1396, Dean of the Philosophic Faculty in 1401, Rector of the University in 1409. As Rector he became leader of the National party, and, with the Wycliffian Magister Jerome, attacked the sale of indulgences. Huss, who knew his danger, was decoyed to Constance by a safe conduct, and, refusing to retract his opinions, was condemned as a heretic, and burnt alive on July 6 of 1415. Magister Jerome shared his fate in the year following.

But the unquenchable spirit of John Huss survived at Prague, and the Tyn Church, facing on the great Square, was the central place of worship of his followers for two centuries, till, after the defeat of the White Mountain, the reforming party was finally crushed. Its two towers look gloomily down on the great market, where, at that time, twenty-seven Protestant noblemen were beheaded, after having their hands cut off, their tongues cut out, and being broken on the wheel. Itself a fine Gothic building with a very beautiful and richly decorated entrance belonging to that period, the Tyn Church probably gained little artistically from its reforming occupants, and fared even worse when, after their suppression and the close of the Thirty Years War, it

came into Catholic control. For that must have happened just at the period of the triumphant invasion of Baroque into Catholic Europe; and the Tyn Church, possibly to remove the memory of its late possessors, seems to have been handed over to its worst excesses. In saying this I am not condemning as such the art of the Baroque, which, as we shall see in this same article, often had produced some very interesting work at Prague in this very period: still less am I taking any part on the side either of the Catholics or the "Utraquists." But such a hash up of two entirely opposed styles, the Gothic and the Baroque, as is offered by the interior of the Tyn Church is, fortunately, rare;



FURSTENBERG GARDENS, PRAGUE





PRAGUE.—MONUMENT OF JOHN HUSS IN THE OLD CITY SQUARE.

the heavily-gilt Baroque altarpieces are a discord to the severe and noble building which they have invaded.

Not far away from this church, the Powder Gate remains to witness to the old fortifications, being a survivor from the eight fine gates which once led into the city. Its foundations were laid under King Vladislav by the builder Kamenik, though the rich external decorations were added by his successor, Rejsek of Prostějov: it suffered during the Thirty Years War, was used as a powder magazine in the 17th century (whence its present name), and restored very successfully in 1876-1880 by the City Council of Prague from the designs of the architect Josef Mocker. As it stands in the centre of modern Prague, with its old archway restored, the richly-decorated Powder Gate is an ornament to the city.

Its design may be compared with that of the less ornate Bridge Tower of the Mala Strana, which guards one of the entrances to the great bridge of Charles IV.

There was a bridge here from very early times, but it was left to the great mediæval ruler Charles IV., King of Bohemia and Emperor of the Romans, to erect it in its present form, with the two fine mediæval towers which guard either end; though the twenty-eight stone groups of figures, with two in metal, date from the 17th century—when in the Catholic triumph the heads of the executed nobles were exposed on this very bridge—and the beginning of the 18th century, when St. Anthony of Padua was added: two groups, those of St. Francis Xavier and St. Ignatius Loyola, have disappeared.

The battle of the White Mountain marks the final triumph of the Catholics in Prague, and this historical event synchronises with the vogue and success of the art of the Baroque in Rome herself and throughout both Italy and Catholic central Europe. Prague now felt this influence in her churches, built or remodelled under



PRAGUE.—NATIONAL THEATRE





PRAGUE.—RUDOLPHINUM (now CHAMBER OF DEPUTIES).

the Jesuit influence, as well as in her civic architecture. The fine church of St. Nicholas, built in the 17th century, with its cupola of copper, is an example of this influence in architectural style, as well as the great Præmonstratensian monastery of Strahov at the extremity of Mala Strana, a foundation of the 12th century, but which had been sacked during the Hussite wars, and was sumptuously restored in the Baroque style in the 17th century; the library here, very rich in manuscripts and early printed books, is finely designed, and covered—including the ceiling—with decorative paintings.



PRAGUE.—THUN PALACE.

Another monastery of importance, connected with the same period is the Loretto House, containing the "Casa Santa," erected in 1626, the Loretan church of the Nativity having been built in 1661; but enlarged later. Here is the famous Loretan treasure, containing many interesting and precious specimens of the goldsmith's art of the baroque time, among which the monstrance of 1669, said to be adorned by more than 6,000 diamonds, may be specially mentioned. But it is in civic architecture that the baroque at Prague has its greatest interest for us now. It has been said that the Mala Strana of to-day is overwhelmingly a baroque town, a town of city houses, of silent and dignified aristocratic palaces, and of wonderful gardens, the most beautiful possessed by Prague. Last summer, when walking down with a Prague friend from the Hradcany to the Jesuit church of St. Nicholas, we passed through a street on the slope of Mala Strana in which two-thirds at least of the houses were absolute baroque of this period, and displayed a richness of inventive fancy which was astonishing.

It seems, in fact, to me that if we are to study this style, apart from the great Jesuit churches of Italy, in its civic side it is to central Europe, to such cities as Wurzburg or Prague that we must take our way; and it is my hope that in the series of illustrations with which I have been able, through the kindness of my friends in Prague, to illustrate this notice, I shall be able to show my readers to some extent what a wealth of beautiful detail is to be found in these old palaces, churches, and private houses of Prague of the 17th century.

## "The Architect" Fifty Years Ago.

JANUARY 14, 1871.

THE Smithfield Martyrs' Memorial Church is at length completed, but the consecration is deferred for the present. The style of architecture is Early Gothic, from the designs of Mr. E. L. Blackburne, F.S.A. On the outside of the building are placed seventeen statues of the principal martyrs, and five bas-reliefs of scenes of martyrdom, with medallions of Tyndal, Wycliffe, and others. The interior will afford sitting accommodation for about 1,000 persons, and half of the seats are to be free; there are no galleries. Round the walls are ornamental scrolls, on which are recorded the names, accusations, dates of death, and memorable words of the sixty-six persons who were burnt in Smithfield, commencing with William Sautre, who suffered in 1400, and finishing with Roger Holland, who was burnt on June 27, 1558. The church is situated in St. John's Street Road, in the parish of St. James, Clerkenwell.



[illegible]

Full Note by Edmund Fort New, at 17 Worcester Place, Oxford, A.D. 1841

THE ARCHITECT, JANUARY 14th, 1921.



Published by the Author, 10, Abchurch Lane, London, E.C. 4, at the Old London Print Works, 10, Abchurch Lane, London, E.C. 4.

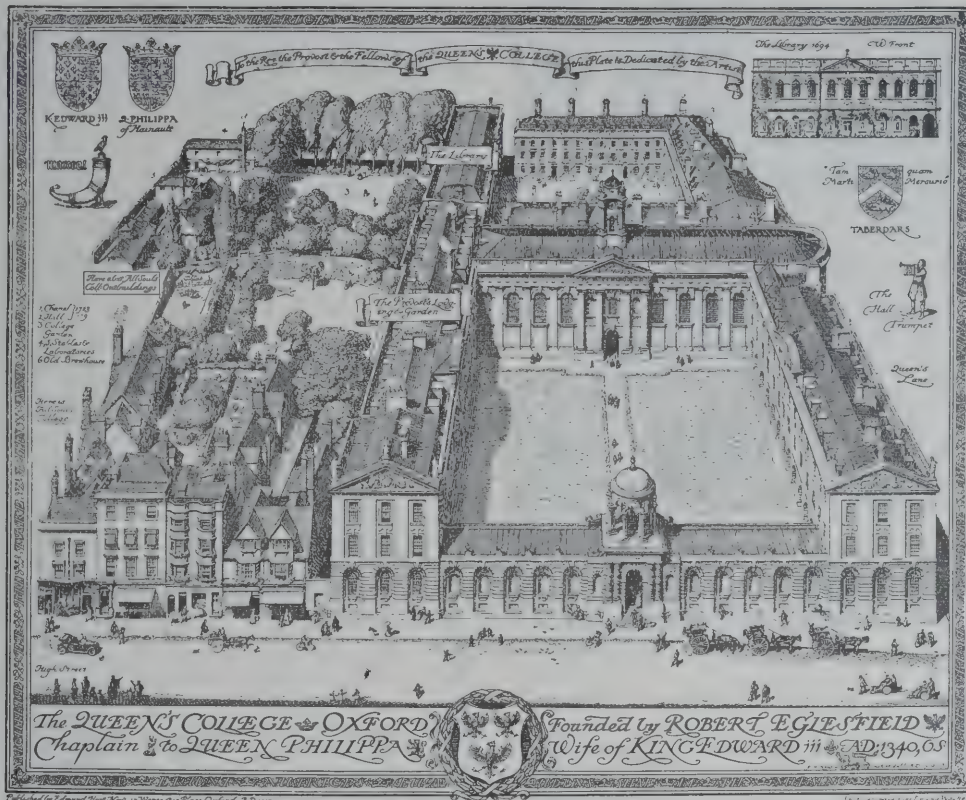
THE PHOTO-ENGRAVER & CO. LTD. 65 & 70, DEAN STREET, LONDON, W.

Printed by the Author, 10, Abchurch Lane, London, E.C. 4, at the Old London Print Works, 10, Abchurch Lane, London, E.C. 4.



# The City and Port of London and other Pen Drawings of Edmund H. New.

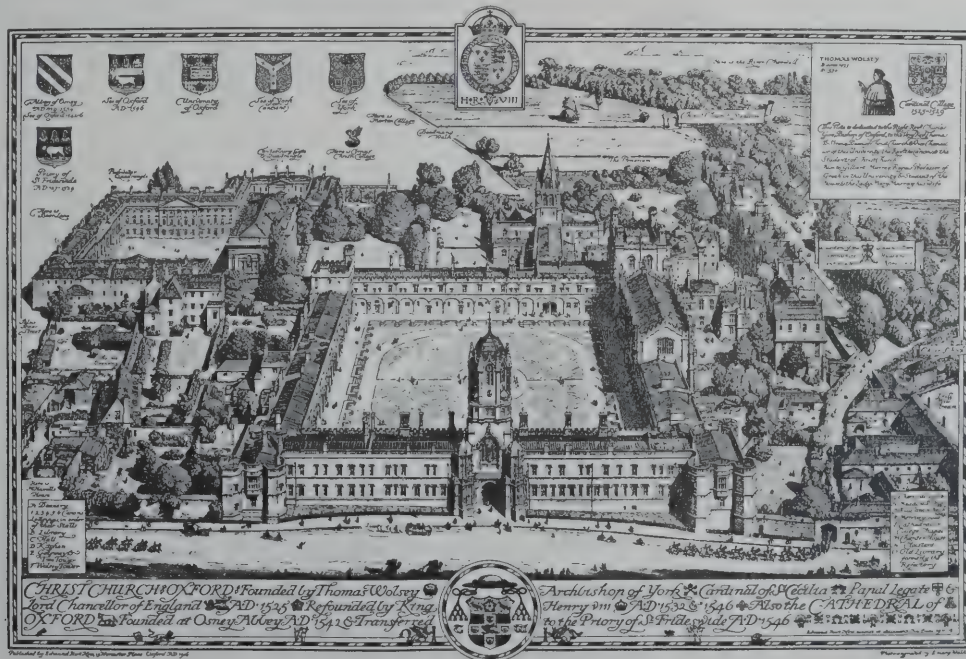
(See Inset Illustrations.)



MR. EDMUND NEW is widely known for the delicacy and accuracy of his delineation of architectural subjects, and we are glad to have secured his consent to a reduced reproduction of his admirable view of the City and Port of London, the original of which is fourteen inches by forty-four inches long. Much of the beauty and delicacy of the original is necessarily lost in the reproduction we are able to give, but we hope that many of our readers will secure the original drawing for which Messrs. Batsford is the author's agent, and which is sold for three guineas. We give Mr. New's description of the view:—

The London of to-day is far too large to be shown in one drawing of a reasonable size, for, taking the widest interpretation, it covers a circle of some twenty-four miles' radius, having Charing Cross as the centre; but "the City," in the restricted, mediæval, and still current sense is little more than a mile from East to West and half a mile from North to South, and can be at least suggested, in some detail, in a single drawing.

It has been treated at intervals by topographical draughtsmen from the middle of the sixteenth century, and this view is taken from the chief traditional standpoint, namely, the summit of the Tower of the Church of Saint Mary Overy, Southwark, now Southwark Cathedral. A frontage of a mile or more cannot, however, be well seen or drawn from a single point of view, and it is obvious that the panoramas of Van den Wijngaerde (about 1550), Visscher (1616), Hollar (1647), and the rest, were composed from studies made from positions to the East and West, as well as from the Church Tower. The same method has been adopted in this drawing, and Saint Olave's Church Tower, and the roofs of Chamberlain's Wharf warehouse have been used for the eastern portion, and the roofs of the Nectar Tea Company's warehouse and the power station of the City Electric Light Company for the western part, as well as the scaffolds of Southwark Bridge and the open road and quays of Bank-side.







For closer study the gallery around the Dome of St. Paul's Cathedral, and the top of the Monument have provided useful standpoints.

In composing the picture the large scale Ordnance Town Plans of the City have been of the greatest use, and photographs and measured illustrations of buildings have often helped to check or amplify the innumerable drawings and sketches made on the spot.

This panorama includes the Temple on the West and the Tower on the East, and as much of the City as can be indicated on this scale. Below the City is the broad band of the river crossed by the various bridges and sprinkled with its varied shipping. In the foreground are the roofs and church towers of Southwark. A very small section of the Port of London appears, for, in theory, it extends from the mouth of the river up to Teddington Lock, but the section is a characteristic one, as it shows the point, at London Bridge, above which no large ships can come, and where the Pool of London terminates.

Beyond and above the City are seen the heights of Hampstead and Highgate, and the lower fringe of hills bounding the Thames valley in the counties of Middlesex and Essex.

As the picture is examined more minutely it is seen that the Royal Exchange comes nearly in the centre of the composition. The left side is dominated by St. Paul's Cathedral, which forms, both in shape and size,

a strong contrast with the group of towers and spires around it. To the extreme left are the Law Courts with the Record Office, the City of London School, and the Fleet Street Churches. The horizon from here to St. Paul's is formed by the buildings of New Oxford Street, Oxford Street, and Holborn, beginning with the Headquarters of the Young Men's Christian Association and ending with St. Andrew's Church and the Central Criminal Court. Between St. Paul's and the Royal Exchange the largest building is Cannon Street Station, which extends over the site of the Steelyard or settlement of the Hanseatic League. The position of Newgate Street, Cheapside, and the other main thoroughfares is indicated by Christ Church, the Telegraphic Department of the General Post Office, Bow Church, the Guildhall, the Mansion House, and numerous other churches and public buildings. In the further distance St. John's Church, Clerkenwell, Saint Mark's, Myddelton Square, and Charterhouse Hall, can be identified. To the right of the Royal Exchange the towers of St. Michael and St. Peter show the line of Cornhill; between and to the right and left of them can be seen the buildings of Hoxton, Shoreditch, and Bishopsgate. To the left of the head of London Bridge is Fishmonger's Hall, and to the right of it are the Monument and Saint Magnus's Church; then come Christ Church, Spitalfields, and St. Mary Patten, Eastcheap, while St. Botolph's spire brings us to Aldgate. Wren's lofty and graceful spire of St. Dunstan-in-the-East stands above Billingsgate Market, and to the right of it are St. Mary's, Whitechapel, Carrington's Brewery in Mile End Road, and the unfinished offices of the Port of London Authority. Beneath the gigantic cranes of this huge block are the Church of All Hallows, Barking, and the Custom House. The next great building is the Tower of London with its keep and encircling fortifications, and beyond it the eye is carried down to Stepney, Limehouse, Shadwell, and Poplar by the outstanding steeples largely due to Wren's pupil, Nicholas Hawksmoor.

Besides this view of London Mr. New has made drawings of the Oxford Colleges, three of which we give small reproductions of in our text with the object of making them more widely known. The series includes New College, Magdalen College, Wadham College, Balliol College, Merton College, Trinity College, Exeter College, University College, Christ Church, Oriel College, New College, while other drawings of Oxford include the Towers of Oxford from the Bell Tower of Magdalen College, and High Street, Oxford, from Queen's to St. Mary's Church. Most of the college views are published at one guinea each, and the views of Oxford at half a-guinea each. These drawings, as well as others, can be obtained from Messrs. Batsford. The design of the borders and coats of arms, as well as the lettering, makes these drawings exceedingly attractive, as they have all the charm of old prints, together with the accuracy of modern draughtsmanship of a very high order.

## Household Engineering.

By J. Rawson Gardiner, Architect, Montreal.

### THE KITCHEN.

In planning the kitchen, be it large or small, pretentious or simple, the question of good light and ventilation, direct plumbing, and the choice and position of equipment should be most carefully considered. When one observes how much of the work of the house is done in this room, the importance of having a bright and attractive room is very evident as a dark, gloomy and otherwise unattractive kitchen must affect the temperament of the persons working in it, and if the equipment is poor the results are certain to be unsatisfactory.

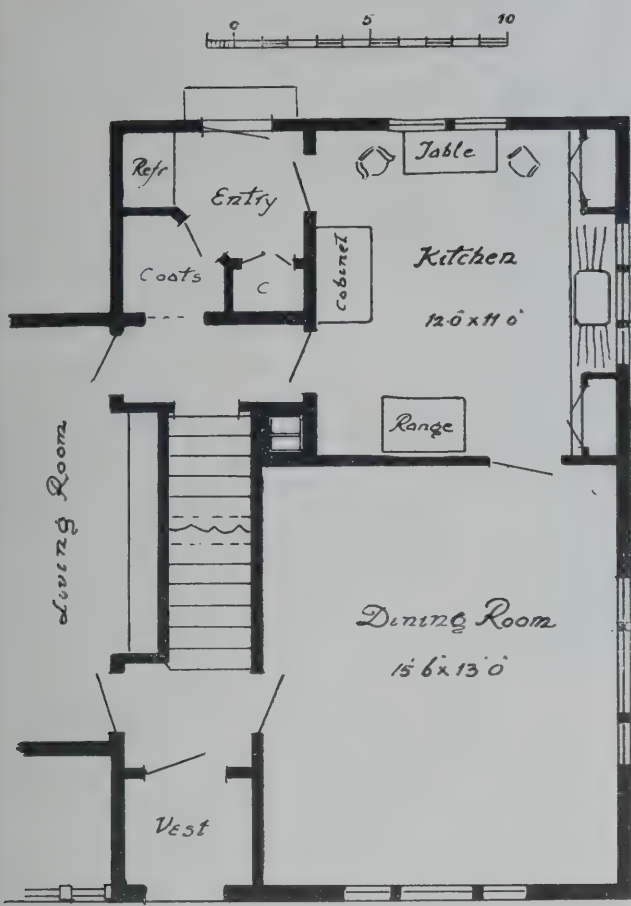
Large kitchens are considered to be detrimental as entailing many unnecessary steps, and the rule usually followed is to make the kitchen as small as possible after allowing sufficient space around the necessary

equipment for comfortable working conditions. The size of the room should vary in proportion to the requirements of the household; in small flats or where only the lighter forms of housekeeping are required, the kitchenette fills a very practical need. For the average family of four or five persons a room 10 feet by 12 feet is large enough, and for a bigger family a 12 feet by 14 or 15 feet room is usually found sufficient.

The sun should enter the room for at least a few hours of the day, and the prevailing wind should blow any odours away from the house and not towards it, so that the aspect of the room must be borne in mind when planning. A northerly exposure with windows facing East and West or North and East will be found satisfactory.



Plan No 1



The kitchen may open either directly into the dining-room in very small residences, or through a serving-pantry; by another door to the yard or garden, and by stairs to the cellar, so that ashes may be carried out without passing through either kitchen or laundry. There should also be a back stairway to the upper floors, except in very small houses.

The question of the best floor for a kitchen is oftentimes a vexing one. Experience shows that most floorings fail in some respect to meet all the requirements of an ideal floor, but a good flooring for a kitchen should be attractive, resilient, easy to keep clean, sanitary, not slippery, durable and reasonable in cost.

Possibly the best flooring will be either linotile, a 1/4-inch tile of a substance similar to linoleum, or linoleum cemented in place and finished with a very light coat of wax. The under floor must be thoroughly dry and even, and if linoleum is used it should be laid down for a few days on the floor before cementing down.

If a hardwood floor is selected it should be treated with melted paraffin wax until every pore is filled, and then rubbed down with a warm iron, when it will be permanently impervious to oil and grease and still have the resiliency of a wood floor. If the kitchen floor is old or of soft wood it may be painted and then waxed.

A cement or a tile floor is sometimes advocated, and they both have certain advantages, but will be found cold and hard to walk on constantly because there is no "give" to the floor; however, if a cement floor is used it should be painted either in one colour or in a tile pattern, which will improve the appearance considerably and then wax as with a wood floor. Provide a linoleum or cork mat in front of each fitting, and the result will be satisfactory. A magnesite or "composition" floor is laid on the concrete in some places.

To preserve the floor—in the case of linoleum use an oil-filled mop for cleaning and preserving the oil which is in all new linoleums. In the case of hardwood, if oiled the oil should be renewed once a week. If a waxed floor, the wax should be renewed every six months. Remember that oil and wax finishes will preserve the floor, while soap and water will shorten its life and tend to splinter

a soft-wood floor. Do not shellac or varnish a kitchen floor.

The walls may be of white tile, wainscoted to 3 1/2 or 4 feet high, and the balance in hard plaster painted in a light shade of cream, soft yellow, or pale grey, and if the tiling is not desired, paint the wall to floor. The ceiling also should be painted. All corners should be coved and trim to doors, and windows plain, with round edges. All woodwork and equipment should be finished to match, as uniformity in this respect is as effective in the kitchen as in other parts of the house.

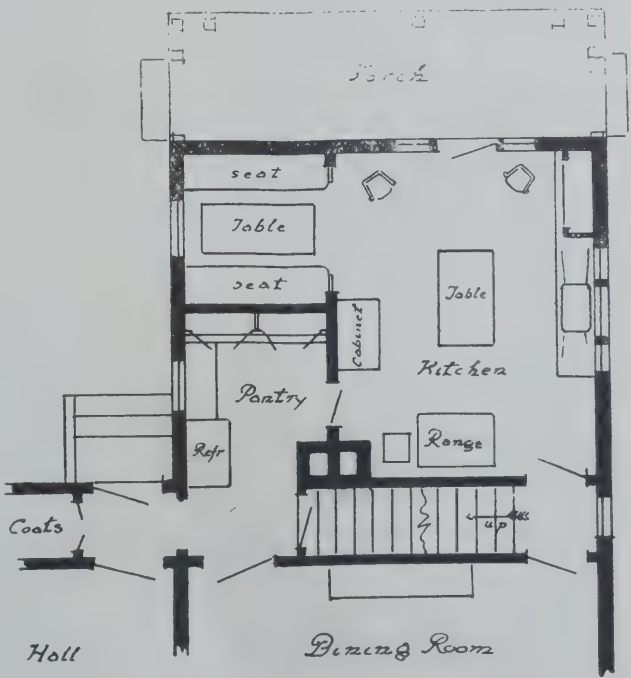
To obtain good light and ventilation, which are necessary in every kitchen, the windows should be placed, whenever possible, on two sides of the room, and if the light is from the side of the fixture, it is preferably on the left side. The sashes should slide up and down, and the sills be 3 1/2 to 4 feet from the floor, and if the sink is under a window care must be taken that the sill clears the back of the sink. Fly-screens to windows and outside doors are essential. Artificial lighting should be from a good central light, with additional lights at each appliance as may be needed. The central light can be used all the time, and the others as each appliance is used.

The plumbing should be as direct as possible, in order to simplify the piping and thus save expense. Bathroom fixtures, kitchen and pantry sinks, laundry tubs, etc., may usually be planned to come in a direct line either vertically or horizontally. To facilitate the work of preparing meals and the washing up of dishes, it is essential to have a plentiful supply of hot water at all times.

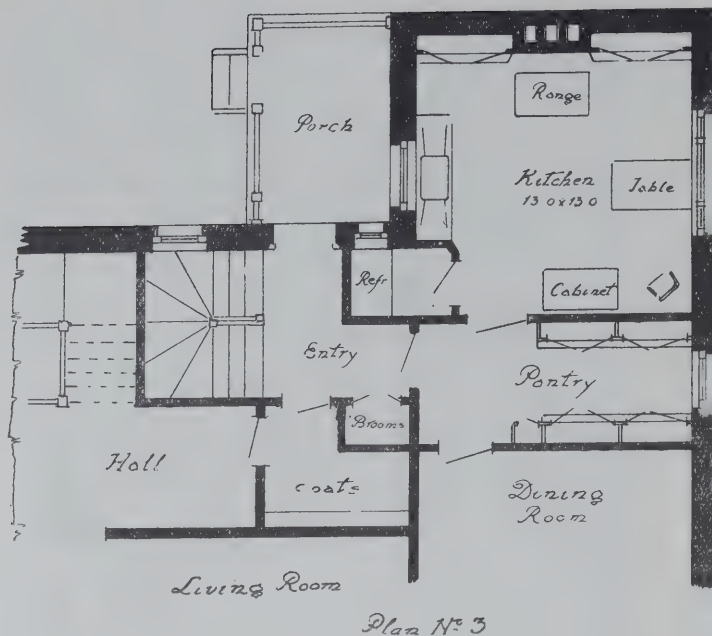
The necessary equipment for a modern kitchen varies with the size of the household and the amount of entertaining done in the home, but there are certain essentials required in every house, be it large or small. Other items may always be added for efficiency's sake. The necessities generally include the range or cooking-stove, the sink, a table and cupboards; these, together with a chair, will be the only essential requirements for the ordinary household. They may be very simple and inexpensive, and yet fulfil the work required of them, or they may be on an extravagant scale, and thus simplify the work and make it easier and more attractive.

Let us discuss each item separately:—

1. The range or cooking stove may burn coal, wood, gas, electricity, acetylene, kerosene, or a combination of gas and electricity or coal and gas, and may vary considerably in price from the expensive steel range to a



Plan No 2



cheap gas-stove. Gas has usually been found entirely practical at \$1 a thousand feet and electricity at 4 cents a kilowatt hour. The former has shown best results at the top burners, while electricity appears to work most satisfactorily in the oven. Both gas and electrical ranges are now made with automatic ovens. A time clock on the electric range turns the heat on at any hour, and a thermometer turns it off when the desired temperature is reached. Food in such an oven cannot scorch or burn, and it will not shrink or lose its flavour even if left in the oven long after the current is turned off.

When gas is used the fumes must be carried off to a flue, and an extra flue should be provided if a hood is desired to carry off the odours of cooking.

2. The sink may be of porcelain or white enamelled iron, and may be supported on brackets or legs. The depth may be 5, 6, or 7 inches, the enamelled sinks usually coming 5 inches and the porcelain 7 inches. A useful size is 20 inches by 30 inches, and 34 inches a convenient height. A drip board on either side is a distinct advantage unless space is limited. Good strong compression anti-splash hot and cold water taps should be always provided, as these taps probably get more wear and tear than any others in the house. Of course, all plumbing must be open. The sink should be placed near the door to the dining-room so that dishes may be placed on the sink without passing across the kitchen.

3. The table is a very important part of the equipment in any kitchen, and will be found to vary considerably in different houses. The top may be of marble, glass, white-enamelled iron, white metal, hard or soft wood. If of wood it may be covered with linoleum or oil cloth, which can be easily renewed when soiled. Tables are sometimes made with the top of two materials, one half being used as a pastry table with marble or glass top, and the other half of polished hardwood for the other work of the cook. A convenient size is 24 inches by 42 inches for the averaged size kitchen. There are usually one or two drawers, and sometimes a slated or solid shelf under. Two tables are very useful and will be found more satisfactory where there is sufficient space and much cooking has to be done.

4. The cupboards will vary considerably, and in no two houses will the space allotted be the same, as every house-keeper has her own needs to satisfy, and the amount of shelving in the pantry will also regulate the requirements. Where the housekeeper is without help a kitchen cabinet is usually found convenient as a working centre. The table top is used as a moulding board, and there are places for pots and pans, jars and dishes, a good supply of flour, sugar, and other groceries. The flood space is about 24 by 42 inches. A sink cabinet is sometimes provided over or near the sink, and will be found a convenient place for the soap, brushes, mop, etc., needed at the sink.

5. Chairs.—As the kitchen in the small residence has oftentimes to be used as a dining-room and sitting-room for the maids it is necessary to have a chair for each maid and a rocker for relaxation periods. Choose a chair of simple but attractive lines, and let it be comfortable. A stool is sometimes desired at table or sink and preferred to a chair. It should be about 24 inches high.

There are several other appliances besides the above items which are very useful and add much to the convenience of the cook. For the proper preservation of food cold storage in some form is necessary; a refrigerator usually being placed in kitchen or pantry or a cold room is provided for this purpose. As the refrigerator is in constant use during hot weather it should be placed not far from the kitchen table.

Refrigerators are made in many styles and sizes—the seamless lined are the most sanitary, and the latest idea is refrigeration without ice in the electric refrigerator making use of mechanical refrigeration. So far this type has been rather expensive to install in residences, but the cost of operation is no more than the cost of ice in most cases.

More uniform temperature can be maintained, and there is no annoyance from the ice man, while these machines will furnish ice cubes for the table and produce sherberts, mousses, and similar frozen dishes.

Electric dish washing machines are now used in some houses where there are a large number of dishes to wash. It is a compact, moderate-size metal drum, in which separate trays for the flat china, for cups and glasses, and for the silver are provided. Turn the switch for a five-minute bath in hot sudsy water, then drain off and rinse for two minutes in clean boiling water, then open the machine and let the dishes dry themselves.

An electric motor may be provided at the table for the use of such auxiliary appliances as a bread mixer, a coffee grinder, a meat chopper, a knife grinder, or an egg beater, which will prevent much drudgery.

A fireless cooker has also been found to save much labour and heat, as food can be placed inside cold and come out cooked to a turn by means of radiators that have been heated for a few minutes on the stove, and this imprisoned heat will do the rest.

A domestic electric ice-cream freezer will be very convenient where ice-cream and iced dishes are frequently desired. They come in one or two gallon sizes using  $\frac{1}{2}$  and  $\frac{1}{4}$  h.p. respectively.

It will be seen from the above that there are many contrivances on the market from which to select, and in choosing your kitchen equipment follow this rule: Plan your room and the position of each article before starting out to buy, and then buy only what you need and can usefully use.

Plans are here shown of kitchens of various sizes in which the equipment is conveniently placed, and range, table, sink, etc., are all well lighted. Note also the position of stairs and doors. It is a sound principle of engineering that a dollar spent at the draughting board will usually save from ten to a hundred dollars on the contract, and this rule holds good in the kitchen as in other work.

The above description applies to kitchens in Canada and the United States, and will show the difference in the methods used in the countries on each side of the Atlantic.

## R.I.B.A. Examinations.

### Increase of Entrance Fees.

THE entrance fees for the Institute Examinations are now as follows:

	£	s.	d.
Preliminary (Registration as Probationer)	4	4	0
Intermediate	5	5	0
Final	6	6	0
Special Final	10	10	0
Special Overseas	10	10	0



## Book Reviews.

## "A Handbook of Indian Art."\*

THE Handbook aims at giving a concise survey of the whole field of Indian art as expressed in architecture, painting and sculpture, which will be useful to travellers and students. It further attempts to advance solutions of several problems which have exercised archæologists for many years, while the author hopes it may form a foundation for a full history of Indian art which has yet to be written—and we would add, which we hope Mr. Havell may himself compile. Mr. Havell has made use of matter which he has already touched upon in previous volumes, and has included illustrations which have appeared in them. This was inevitable and is not to be regretted since without it he could not have made his survey a complete one. The great services of the fine series of books of which this forms one are, firstly, that the explanation given of the religious ideas which inspire Indian art enable us to see in them not crude and unmeaning imagery, but the consistent expression of a highly cultivated people working along mental paths unfamiliar to European thought, and secondly, the folly of trying to supplant by an artificially forced education on European lines a traditional art whose results are greater and more suitable to India than any we can hope to supply from without. The best we can do by the latter method is to produce a spurious and third-rate caricature of the works of an alien civilisation which can only be accomplished at the cost of the destruction of an art greater than any we can plant on Indian soil. We can in a word kill a living art, but we cannot instil real life in what we can give to replace it.



LOTUS CAPITALS, KÂRLÊ.

(From Havell's "Handbook of Indian Art.")

We are in India face to face with conditions which can only be likened to those which might exist here if methods, faiths, and customs on mediæval lines still existed in our midst, with this added difficulty that if such conditions obtained we as a Western people should be infinitely nearer to an understanding of, and sympathy with, them than we ever can be to the art of the East.

It is possible that if we as a nation had swept over the Himalayas and settled as permanent residents in India we might have produced an indigenous art on Indian

soil, but such can never be the case. In India our people have but formed a small organising and ruling caste among a large number of Asiatic races imbued with an art and civilisation of our own. The best we can do for India is to sympathetically afford to its people the protection of our power and organisation in order that its varied races may freely develop on lines natural to those whose past is a great and civilised one though alien to us.

Mr. Havell's main thesis may be defined as being the all-pervading nature of Vedic religious beliefs and forms, which showed themselves throughout the successive phases of Indian beliefs, and were expressed in her buildings from the time when Buddhism was the universal faith to the later period of the Moghuls. Although the first Indian art known to us only dates back some three centuries B.C., and is supposed by Fergusson to have been derived from Greek and Persian prototypes, Mr. Havell considers it is at least as likely that the arts of these countries may owe some of their derivations from the art of India. The proof of this theory may be made manifest when some of the older Indian cities have been excavated and examined.

The origin of the stupa or domical covered monuments to a dead king is connected with the worship of Buddha as a great yogi or teacher, the later form of the Sikhara with the idea of a Bodhisattva or king of the heavenly



SIVA TEMPLES, MĀMALLAPURA

(From Havell's "Handbook of Indian Art.")

\* "A Handbook of Indian Art." By E. B. Havell. (John Murray.) 25s. net.





TOMB OF SHĒR SHAH. (From "Havell's Handbook of Indian Art.")

spheres, and there are indications that it was the king's chapel where the rites of Surya or Vishnu worship were performed in the presence of the king as the gods' representative on earth. The form of the cap of the Sikhara in all examples is invariably the same as that found on Asoka's imperial standards—the amalaka or fruit of the blue lotus, the symbol of a world ruler. The geographical distribution of the Sikhara temple corresponds with that of the Vaishnava sect, and is the almost universal form in Northern India, whereas the temples in Southern India where the Saivas predominate are usually covered by the Stupa dome. The Sikhara form is not, the author believes, as Fergusson thought, indigenous to India, but was probably introduced by the Aryans in Mesopotamia, the tall conical mudhuts of that country being strikingly suggestive of the conical Sikhara often found in India.

The Sikhara follows the form of the cell it covers, and may be square, circular, or star-shaped, but is usually the first mentioned.

Hindū ritual being individualistic and not congregational only requires a shrine for the deity and a verandah or porch for its custodian, but for the elaborate ritual of a royal court or numerous civic purposes it was necessary to provide suitable shelter for large congregations. The temple was the durbar house of kings, the assembly hall where philosophical and religious discussions took place, and where the people listened to recitations of the great epics, the singing of sacred songs, and the performance of the temple nautch.

Many temples accordingly comprised a series of mandapams or assembly halls, dedicated to such uses on which was expended the highest skill of the Indian master builder. A fine series of illustrations of various temples are given which illustrate the wonderful effect of these piles of masonry, in which fancy and design play so large a part, as utilitarian needs are practically eliminated. In fact there is little actual difference between the design of temples like those of Ellora which are cut out of the live rock and those which are built on the surface of the earth. The gopuram or gateways to the great temple enclosures of Southern India are another very fine feature of Indian architecture.

The consideration of the monastery, mandapam, and palace naturally lead to the discussion of the architecture of the Moghuls in which the author sees greater traces of Hindū building than Fergusson and older writers have supposed. There is certainly in many of the Muhammadan buildings of India a quality of solidity and impressiveness not found in the more Western countries which were overrun by the Moslems. The tomb of Sikandar Lodi and other examples given are good specimens of Indian design, though compared with the earlier work of the Hindū there is a distinct suggestion of effeminacy.

Sculpture and painting are both well described and illustrated, Mr. Havell again emphasising the different standpoint adopted by the Greeks who idealised the human form, and the Hindū who imagined beings possessing idealised attributes. The realisation of this standpoint is necessary to the correct criticism of work which essayed an altogether different aim than that of European art. Throughout the book we are made conscious that we are living in a new world to understand which we should have to be trained from the beginning on lines unfamiliar to us. The realisation of this should show us the impossibility of grafting on European ideas to Indian thought which like our own must express itself in its own vernacular, and in one entirely unlike that of the West. We may give the Indian builder opportunities of practising an art which is still alive after two thousand years of development and growth, but which to live in the centuries to come must be entirely independent of that of Europe.

[Among the sources from which the illustrations in the "Handbook" were supplied are M. Victor Goloubeff, the India Office, and the Archæological Survey of India.]



GOPURAM, GANDIROTA OUDDAPAH. (From "Havell's Handbook of Indian Art.")



# CONCRETE "KING" PLASTER BLOCKS SLABS

## WALLS PARTITIONS ROOFS

### FIBROUS PLASTER CEILING SLABS

*Ferro-Concrete and Glass Constructions*

## "FERRO GLASS" PAVEMENT LIGHTS

## "KING" CONCRETE GLAZING BARS

### J. A. KING & Co.

181, QUEEN VICTORIA ST., LONDON, E.C., and  
BRITANNIA BUILDINGS, LEEDS.  
Tel: City 2213 and Cent. 773, and Leeds 22712.

## Ideal Classic

### *The Radiator of Distinction*

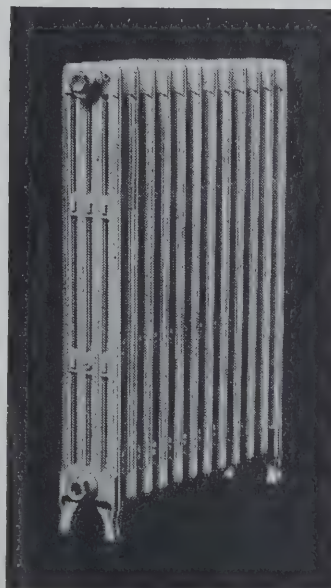
Modern refinement of taste necessitates new standards in radiator design, and having devoted much time and many experiments to the solution of this problem, our efforts have now found expression in the

### IDEAL CLASSIC RADIATOR

which combines beauty of form with unequalled efficiency.

With Ideal Classic Radiators fifty per cent. more heating surface is obtained in a given space, while the water contents are less than one half those of the average radiator.

Write for particulars. Inspection of our Showrooms invited.



## NATIONAL RADIATOR COMPANY LIMITED.

Offices, Showrooms & Works: HULL, Yorks.

Telephone: Central 4220. Telegrams: "Radiators, Hull."

London Showrooms: 439 & 441 Oxford Street, W.1.

Telephone: Mayfair 2153. Telegrams: "Liableness, London."

Agents in Great Britain carrying stocks of "Ideal" Radiators and "Ideal" Boilers:

Baxendale & Co. Ltd., Miller Street Works, Manchester.

William Macleod & Co., 60-64 Robertson Street, Glasgow



PROPOSED BRIDGE OVER THE THAMES. From the original design by THOMAS SANDBY.  
Illustration from "The XVIIIth Century in London."

### "The XVIIIth Century in London."\*

MR. BERESFORD CHANCELLOR has chosen a most interesting theme and has treated it with great skill and conscientiousness, for the material at his command is so voluminous that it is no small feat to have given a picture of eighteenth-century London and its life in the limits of a single volume, because the growth of London has been so phenomenal since the close of the sixteenth century that we may say it is no longer possible to give a general view of London in one field of view. The London of which Mr. Chancellor writes extended some two miles from east to west, and two from north to south, thus including an area which is little more than three times that of the City of London, and of which that City at London represented almost the whole urban district. Within these limits London represented England more truly than it has ever represented it since, for it was more pre-eminently the centre of all activities than the greatest London of modern times, for among our provincial towns of modern times some like Glasgow and Manchester, which rival the capital as centres of commercial occupation in defined fields and whose area is as great as that of the capital in the eighteenth century. Nor must we forget that London of the eighteenth century was given a special importance by being the seat of government of a German dynasty, which maintained its position by the dissensions of its opponents and the English fear of a revival of autocratic government. London, in fact, was the centre to which flocked all those in search of advancement, those who wished to intrigue in the troubled waters of politics, the world of fashion and of pleasure, and the window through which the Englishman caught glimpses

of the outer life of Europe. The book is divided into eight chapters, of which the first deals with the social life of the period, the second with street topography, the third pleasure resorts, fourth clubs, coffee houses and taverns, fifth great houses and public buildings, sixth the churches, seventh the arts of the eighteenth century, and the eighth the architectural relics of the period, so that it covers a very wide and interesting range of subjects. Medieval London was destroyed by the Fire of 1666, and unfortunately for posterity we have comparatively little accurate knowledge of its appearance, as early prints and drawings were not as a rule distinguished by their accuracy. The London of the eighteenth century has been very largely destroyed by modern changes brought about by the greatly increased value of sites, but we have abundant material from which we can reconstruct the actual appearance of the London of two centuries ago, both in the shape of plans, measured drawings, and the actual buildings which have survived the changes of time.

The London of the eighteenth century hugged the outlines and limits of mediæval buildings, replacing them for the most part by sober and simple brick structures, which were usually of comparatively little cost or elaborate architectural character. London took its colour from the wants and requirements of the well-to-do citizen, largely untinted by any note of aristocratic exclusiveness. Its great houses, such as Chesterfield House, Devonshire House, Burlington House, Lansdowne, Stratford, and Carrington House, were sober unostentatious piles of building affording no counterpart to similar buildings in France or Italy, while its churches maintained the subdued note of utilitarianism struck by Wren, with his innate understanding of the wants and tastes of his countrymen. Where Wren's successors endeavoured, with ampler funds, to compass a stronger note their

\* "The XVIIIth Century in London." By E. Beresford Chancellor (B. T. Batsford, Ltd.) 35s. net.



# REDPATH BROWN & CO., LTD.

## CONSTRUCTIONAL ENGINEERS



### WORKS AND STOCKYARDS

LONDON.  
Riverside Works,  
East Greenwich, S.E.

MANCHESTER.  
Trafford Park.

EDINBURGH.  
St Andrew Steel Works.

GLASGOW.  
Pinkston.  
Office 19, Waterloo St.

BIRMINGHAM  
Office 47, Temple Row.

NEWCASTLE-ON-TYNE.  
Milburn House.

London City Office.  
3, LAURENCE POUNTNEY HILL,  
E.C.4.





PART OF OLD LONDON BRIDGE. From a water colour by VARLEY.  
(Illustration from "The XVIIIth Century in London.")

work is for the most part marked by a dreary dullness which a posterity which deals discretely with the work of the past often fails to emphasise. The aristocracy of the eighteenth century were content to pass their lives among surroundings which were for the most part commonplace and even plebeian in character, satisfied to show their instincts in a literary direction or in the careful isolation of a class.

And in front of this staging passed the pageant of a life at once crude and artificially cultivated, barbarous in its punishment of crime and treatment of misfortune, picturesque in its customs, and scarcely aware of the immense possibilities of the modern world, of which the eighteenth century formed the threshold.

The book forms a fascinating picture of an age which now seems utterly remote from us, but from which we are separated by but a few generations, and is both well written and admirably illustrated. It is a book which will be valued by lovers of London and by the increasing class of those who like to see architecture the outcome of the character of people by whom it is produced.

## Forthcoming Events.

*Friday, January 14.*—London Society.—Meeting at 18 John Street, Adelphi, W.C.—Paper by Mr. Cumberland Clark entitled "Dickens's London." 4.30 P.M.

*Monday, January 17.*—Royal Institute of British Architects.—Meeting at 9 Conduit Street, W.—Paper by Mr. H. Chalton Bradshaw, A.R.I.B.A., entitled "The Restoration of Praeneste." Award of Prizes and Studentships. 8 P.M.

*Tuesday, January 18.*—Illuminating Engineering Society.—Meeting at 18 John Street, Adelphi, W.C.—Discussion to be opened by Mr. J. C. Elvy on "Use and Abuse of Light in Studios for Cinema Film Production." 8 P.M.

*Wednesday, January 19.*—Northern Architectural Association.—Meeting at 6 Higham Place, Newcastle.—Paper by Mr. G. A. T. Middleton, A.R.I.B.A., on "Westminster Abbey." 7 P.M.

THE Essex county architect has prepared plans for increasing the accommodation for tuberculosis patients at Black Notley and Harold Court at an estimated cost of £9,500 and £9,900 respectively. The schemes have been approved by the Essex County Council.



GREENWICH FAIR. From the original drawing by ROWLANDSON.  
(Illustration from "The XVIIIth Century in London.")



THE  
**NORTHERN**  
ASSURANCE COMPANY LIMITED  
(ESTABLISHED 1836)

Assets  
exceed  
**£15,000,000**

FIRE  
LIFE  
MARINE



Income  
exceeds  
**£6,000,000**

MOTOR  
ACCIDENT  
BURGLARY

London Head Office: 1 MOORGATE STREET, E.C. 2.

Agency Appointments granted to Architects, Estate Agents, Auctioneers, etc., in a position to influence Business.

**FOR WINDOW BLINDS  
OF "QUALITY"**

Always Specify those Manufactured by  
**JAMES MEIGHAN & SON**  
328 ABERCROMBY STREET, GLASGOW.  
Showroom: 37 PATH STREET.

**Robinson's Galvanised Steel Louvre Ventilator**

RAINPROOF  
VERMINPROOF  
UNBREAKABLE



9 in. x 4½ in.

LARGE STOCKS HELD

Inches		Inches		Inches	
Wide.	High.	Wide.	High.	Wide.	High.
4	12	10	5	15	12
5	3	10	6	15½	9
6	6	10	10	17	13
6	9	12	6	18	6
6½	25½	12	8	18	9
9	3	12	9	18	12
9	3½	12	10	20	14
9	4½	12	12	24	12
9	6	12	18	24	15
9	6½	13	17	30	12
9	7½	13½	13½	30	15
9	9	14	10	30	18
9	12	14	12	36	12
9	16½	15	7	37	37
		15	9		

**WILLIAM BORLAND & CO.** 148 Howard Street, GLASGOW

## Departmental Destroyers a Duet of the Day.

OVERTURE.

*The Kaiser in his exile  
Must surely think it fun,  
To see Great Britain throw away  
The victory she had won.*

*To see officials wearing down,  
The strength that beat the Hun,  
To hear of thousands unemployed  
From morn till setting sun.*

DR. CHRISTOPHER.

*I spend the People's money,  
And ask for more and more,  
Though critics say my policy  
Is rotten to the core.*

SIR ERIC.

*I ran the whole North Eastern,  
But that's a little thing,  
To what I'll do with Britain  
When tucked beneath my wing.*

DR. CHRISTOPHER.

*My printers set up pamphlets,  
On housing; soil and land,  
Conditions and restrictions  
Which none can understand.*

SIR ERIC.

*I make men pay for travel  
More than they used to do.  
I take away facilities  
And run one train for two.*

DR. CHRISTOPHER.

*I've puzzled every builder  
And raised the workers' hope  
By talking of insurance  
And other kinds of soap.*

SIR ERIC.

*I've staffed a huge department  
With experts and with clerks,  
The total sum I pay my men  
Would satisfy the sharks.*

DR. CHRISTOPHER.

*I'd stop all other building,  
If I could get the chance  
To spend more paltry millions  
And upset all finance.*

SIR ERIC.

*I am the King of Schemers  
For I would rob the sea,  
And keep the Severn river  
For ever slave to me.*

DR. CHRISTOPHER.

*I hypnotise the People  
And multiply the cost  
Of my administration  
Unkindly called a frost.*

SIR ERIC.

*When I have dammed the Severn,  
And used its flood for power,  
Do you believe the taxpayer  
Can last another hour?*

CHORUS.

*The rulers of Departments  
Are greater powers by far  
Than Hinderburg or Ludendorff  
With all their armed power.  
For mightier than the power which  
failed  
To crumple up its foes,  
Our poor old bankrupt England  
Will fall as once she rose.  
They empty every pocket  
And raise internal strife,  
With charming little programmes  
Most effective in a fight.  
They daily spend our money,  
They'll stick to all their jobs,  
Unless indignant voters  
Pursue them in their mobs.*

## Correspondence.

To the Editor of THE ARCHITECT.

### The Telephone Ramp.

SIR,—Regarding the proposed new rates for telephone service it would appear from newspapers of to-day that the Post Office authorities expect to obtain Treasury authority to proceed with them in a few days from date. Indeed, notices of termination of existing contracts have already been addressed to subscribers. This move has taken many people by surprise. It was assumed that before the country was saddled with the new proposals they would be fully discussed in the House of Commons. As officialdom has adopted hush-and-rush tactics in the matter, everyone throughout the country who is interested in the subject should immediately, through the general and technical Press and other means, remind the bureaucracy of Post Office and Treasury that they are servants and not masters of the country.

This is not a time to increase financial burdens of business men by any set of public officials without convincing and sound reasons for so doing. Such reasons have not been given in the P.O. Committee's report. If reference be made to page 7, paragraph 16, of the report, it will be seen that it is assumed that the current financial year 1920-21 forms a normal basis of calculation for expenditure in the future. This assumption is merely the official way of expressing the hope that the enormous increase in salaries and wages between 1913 and 1914, at £2,422,091 to £8,175,000 for 1920-21 and corresponding increase in pensions will be standardised for the future.

From such an astonishing increase it is evident that since 1914 officialdom has done itself well. Even Bob Smillie and the miners have been eclipsed in the art of squeezing money out of their victims. So far from admitting that 1920-21 expenditure can be accepted as normal, it is suggested that all round there are already marked indications that salaries, wages, and the cost of materials are on the down grade universally, therefore Post Office officials must be made to fall into line with the community generally.

As evidence of the suggested tendency of manufacturers to-day, I learn that two important firms who employ between them not less than 6,000 workers, the workers have been formally dismissed and work will be closed until workers accept wages approximating to 1914 rates. Everybody is aware of the slump in the price of copper, lead, and spelter, and other materials that are used in telephone plant, similar particulars could be added indefinitely to show that costs at the time the Post Office Committee was sitting are now considerably modified.

The Post Office Committee admit that it is practically impossible to draw useful comparisons of rates for telephone service as between Great Britain and other countries. A

glance at the appendices of the report will amply confirm this view. It does not seem necessary to look away from home for more reliable data upon which to base conclusions.

Up to December 31, 1911, a telephone business was conducted in this country which paid its way and yielded its shareholders a fair return on their money. In addition, the business carried the burdens of a Royalty of 10 per cent. paid to the Postmaster-General. As an alternative to conducting the telephone business of the country, as a nationalised business, it may be preferable to denationalise the business and have it bought up and worked by a private company.

As an example of the effect of the application of the proposed new rates, a comparison was made between existing and new proposals for a service comprising three exchange lines and a few extensions. The increase will exceed £150 per annum.

It is admitted that the call rate is in principle more equitable than unlimited service, but a modification of 1½d. per call must be made, otherwise the cost of the facilities will become an unbearable additional tax on business. In order to bring costs down it is absolutely necessary that salaries, wages, and pensions for services rendered must be fixed on a commercial basis in all respects.

The first thing to do is to postpone, if possible, the decision of the Treasury until the subject has been more fully discussed throughout the country.—Yours, &c.,

January 8, 1921.

A TAXPAYER.

### "Ihanne" System of Central Heating.

SIR,—Having requested the Ministry of Health to give their opinion about above-named system, I had a letter with the following contents:—

Ministry of Health, Whitehall, 30 December, 1920.

"STANDARDISATION AND CONSTRUCTION COMMITTEE."

DEAR SIR,—I am directed to advert to your letter of the 7th instant and to inform you that the Ministry of Health will raise no objection to the use of your "IHANNE" system of heating in connection with State-aided Housing Scheme, providing the work is carried out under expert supervision.—Yours faithfully,

E. J. ILLSLEY, Technical Officer.

This ought to dispel all distrust that people naturally have against new inventions, and if other informations are desired I shall be pleased to furnish them.—Yours, &c.,

12/13 Poultry, E.C. 2.

I. RASANEN.

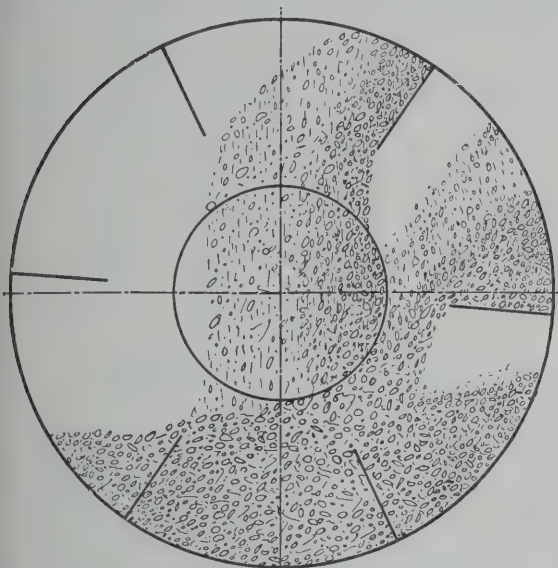
WE regret to hear that Henry T. Hare, Past-President of the Royal Institute of British Architects, died on Monday, January 10. Mr. Hare carried out numerous important public buildings, most of which had been won in open competition.



# Which Concrete Mixer?

THE VITAL IMPORTANCE OF EFFICIENT MIXING.  
AN INVITATION TO ARCHITECTS TO GET RANSOME CATALOGUES.

ARCHITECTS are vitally concerned with the efficiency of Concrete, and they specify the ingredients. But there are still many architects (otherwise progressive) who have yet to realise that the efficiency, strength, durability of the concrete is partly or wholly ruined—no matter what the ingredients—*unless all the ingredients are properly MIXED.* The unreliability alone of the human element is sufficient to condemn hand mixing of concrete; besides, the best hand mixer who ever lived could not mix the ingredients 100% homogeneously and uniformly. So it remains for architects to decide "Which concrete mixing MACHINE am I going to order or recommend to my contractor?"



This does not show the Ransome Mixing Vanes. It is just a diagram showing how in a Ransome Mixer all the ingredients are turned over in the revolving drum in a way that *guarantees 100% efficient and uniform mixing.*

Some mixing machines are little better and often worse than hand mixing; they are in fact *not* "mixers" since they merely divide the aggregate a few times, then allow it to come together in large clots which are then chuted out as "mixed" concrete! These are usually the cheap and rickety imported concrete mixers which break down, prove expensive nuisances, and bring discredit to concrete mixing machines generally. On the other hand the world-famous All-British Ransome Concrete Mixers have scientifically arranged patented mixing vanes which render it *impossible* for all the ingredients NOT to be mixed 100% efficiently in 30 to 60

seconds. "Cracks," "disintegration," etc., so common with concrete that has been mixed by hand or in inefficient machines, never occur with Ransome-mixed concrete if the ingredients are correct, because there are no "pockets" of mere sand and stone to crack and crumble. Every square inch of Ransome-mixed concrete contains its due percentage of cement binder—it is concrete on which an architect can safely stake his reputation. Not only on the score of 100% efficient MIXING, but also because of efficient RUNNING without breakdowns, and LONG LIFE, architects would do well to *recommend contractors to use RANSOME Mixers.*

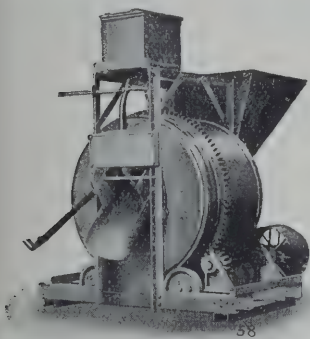
## WRITE to DEPT. N. for

Leaflet No. 8 on "Efficient Mixing."  
Catalogue No. 151 on "Concrete Mixers."  
Catalogue No. 13 on "Concrete Hoisting and Placing Equipment."  
Leaflet No. 11 on "Concrete Tip Carts."

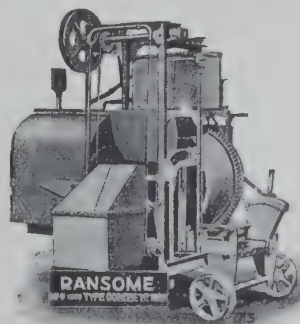
*It must be "Dept. N."*

**RANSOME MACHINERY CO. (1920) Ltd.**  
14-16 Grosvenor Gardens, London, S.W.1.

*Largest Manufacturers of Concrete Mixers in Europe.*



Stationary Belt-driven Ransome Concrete Mixer with fixed feeding hopper.



Portable Petrol-driven Ransome Concrete Mixer with elevating feeding hopper.

# RANSOME

ALL BRITISH

1182

The Mixers that mix 100% Efficiently.

The Mixers that are recommended by Wise Architects.

The Mixers that are preferred by the most Experienced Users.



## Distribution.\*

By RAYMOND UNWIN, F.R.I.B.A.

THE title of this paper covers both the distribution of the parts of the city and the distribution regionally and daily of its population; for in this subject of distribution the main problems which face the town planner at the present time are to be found. Many of the detailed difficulties of town planning have been satisfactorily faced and solved. There now remains to extend to the whole country the type of development and town-planning control which has been amply proved to be desirable in the pioneer areas. In regard to the broader aspects of distribution, however, our problems remain, not only unsolved, but largely unrecognised. It is true that in several town-planning schemes there have been areas reserved for factory, for business, and for residential purposes; and in so far as these limited areas are concerned some advance in the direction of solving the problems of distribution may be said to have been made: at least the public interest in dealing with the problem has been recognised. But the subject is a more fundamental one than any action hitherto taken would suggest. It is the root problem of the big town looked at as a whole.

In spite of all their drawbacks the big towns continue to grow. The great city, as we know it, is no longer in any real sense an organised community based on recognised social links tying the various individuals and classes together. It is now little more than an amorphous mass of population, having no organic structure as a city, though filled with casual groupings more or less extensive and powerful, depending for their existence mainly on the support of one or other of the special interests which struggle for influence in the mass. This want of proper organisation and distribution is reflected in the outward form of the city, and is at the same time in large measure a reaction from that outward form. The improvement of conditions in the modern town will depend on the attainment of two main ends: the proper distribution of the parts of the city, and the adequate localisation of the life of its citizens. So long as the industrial, the commercial, and the residential areas are hopelessly mixed up, struggling each to expand at the other's expense, and so long as in this environment the people are rushing backwards and forwards over the whole city area without having any place to which they belong or any definite local tie, there can be no real cure for the squalor of the homes, the physical deterioration of the race, and the artificial triviality of life which are undermining the town populations of the civilised world.

The growth of the great town has been due to certain centralising tendencies affecting commerce, industry, recreation, and many other branches of human life. In regard to commerce there is yet little sign that the tendency has reached its limit. The commercial areas of most of the great towns are still rapidly growing, and perhaps growing most quickly in the greatest cities. The increasing power of individual men to control ever greater spheres of commercial and industrial interest maintain a very definite centralising tendency. Whether it will or will not soon reach its limit one does not know. When the telephone not only reproduces the intonation of the human voice, but brings before the listener a moving picture of the speaker's face as may easily happen so that subtleties of his expression can be watched, it may be that the advantages of personal interview, as compared with the long-distance conversation will be reduced, and a check to concentration follow. Be that as it may, the telegraph and the telephone, aided by the motor-car, have already allowed a decentralising tendency to develop as regards industry, and have facilitated moreover a separation between the

commercial centre and the productive factory of many industries, which now commonly have their works outside the great town and their commercial office in the centre. This new concentration of industry in what may be called decentralised centres, far from having reached its limit, is only now beginning to be recognised and collectively provided for as a movement of great importance. Its advantages are many. One of the main advantages leading to concentration of industry in certain areas is connected with transport facilities. The total cost of trans-shipping, handling, and carting the various materials of industry represents a considerable fraction of the total value of the finished product; and economies in this branch of the work may add very materially to the efficiency of the industry.

An example of a completely equipped industrial area that I have seen is that outside Frankfurt, the development of which was very rapid between the years 1909 and 1912. In 1909 the sidings were being made and the excavations were being carried out for the immense docks which were prepared to deal with the barge traffic of the Rhine. In the year 1912 the docks had been completed, many warehouses and factories built, all the railways connected with the sidings, and a very large volume of industrial activity was centred on the area. Moreover, the streets of Frankfurt had been relieved of much obstructive and expensive transport.

The limits to industrial concentration are due to the following main causes: The difficulty and cost of transporting labour beyond a certain distance; increase in the cost of land and of local administration; the difficulty of providing space for adequate expansion, or giving facilities to the late-comers equal to those available on the original sites nearest to the docks or sidings. The limit of the most convenient and economical industrial area may be greater or less according to the nature of the site and the way in which it is laid out, but there can be no doubt that a very definite limit exists. Large cities will best be served by a number of industrial areas, each of adequate size to justify the provision of the necessary transport facilities and to allow for reasonable expansion of the factories, and each in close touch with a sufficiently large residential area for all the different classes of workers which may be required. This arrangement will involve the least waste of money in needless transportation either of goods or of workpeople.

Concurrently with the growing tendency for great concentration of commerce and the more limited tendency for the centralisation of industries to specially equipped industrial areas, there has been occurring in many great cities a very marked decentralising movement of the population. There is some evidence that in London the psychological cause has been more powerful than the material, for all over Central London not only has the population been decreasing, but the density of the population has been falling, which suggests that the outward movement due to attraction may have been stronger than the outward movement due to pressure. This decentralising tendency is still going on. Hitherto little attempt has been made to regulate it or to organise it: the result is that the population has flowed over the country surrounding the city, taking the lines of least resistance, following the suburban railways and the main arterial roads, and within the areas served by these selecting those places which appeared to offer convenient and attractive dwelling places, and those in which the owners of the land made some provision for development.

The decentralised population of the great towns is remarkable because of its complete suburban character. It has emigrated from the centre; it looks to the central area alike for its livelihood and for its amusements, and it has the minimum of association with the places in which it settles, or interest in their local affairs. There can be little doubt that this type of suburban development in towns beyond a limited size is unhealthy socially and unsatisfactory economically; and one of the chief problems before the town planner is the proper localisation of this suburban population. In the neighbourhood

\* Abstract of a paper read before the Town Planning Institute on January 7.



# A FINE BUILDING

is worthy of preservation from  
the disastrous effects of

## FIRE.

# MINIMAX

## Chemical Hand Fire Extinguisher

helps towards this end, as its  
instantaneous action and abso-  
lute reliability reduces damage  
to the minimum.

Full particulars from :—

Box 11

**MINIMAX Ltd.**

Branches :  
LONDON  
GLASGOW  
DUBLIN

Head Office & Factory :—

FELTHAM,

Middlesex.

Branches :  
CALCUTTA  
BOMBAY  
SYDNEY

# ELLIOTT & SONS READING LTD.



Panelling in English Walnut, quartered, veneered. E. Dunkels, Esq. Maidenhead

## INTERIOR WOODWORK.

**MOULDINGS** of the highest quality.  
Architects' Designs carefully executed.

Period work entailing the very finest  
Panelling, Doors, Staircases, etc., carried  
out with great attention to detail.

Established 1835.

Telephones : Hop 5378 & 5379.

# WM. GROOM & SON, LIMITED

*Timber Merchants and Importers*

**107 CAMBERWELL ROAD, S.E. 5.**

Addington Wharf  
Camberwell Road

Sawing, Planing { Memel Wharf,  
& Moulding Mills { 399 Albany Road.

### SELECTIONS FROM STOCK.

#### MARK.

K—C 20 Std. 4 x 11 5th Red.  
(Suitable for joists and carcassing.)  
L\*\*W 5 Std. 3 x 11 u/s Red.  
PB 20 „ 3 x 9 „ Quebec Spruce.  
F+F 20 „ 3 x 9 „ Red.

(Suitable for joinery.)

PB 20 „ 1½ x 9 u/s Quebec Spruce.  
Bodum 5 „ 3 x 8 „ Gefle Red.  
+HB+ 20 „ 2½ x 7 „ Red.  
K—C 10 „ 2 x 11 5th Red.  
K—C 5 „ 2 x 9 „ „  
W+R } 150 „ 2 x 4 u/s „  
H. Co. }

(Long average lengths.)

### SLATING AND TILING BATTENS.

#### MARK.

W S 15 Std. 5/8 x 3 u/s Red.  
10 „ 3/4 x 2½ „ „  
ARF 5 „ 3/4 x 2 „ „  
10 „ 3/4 x 1½ „ „  
15 „ 3/4 x 1 „ „  
W S 15 „ 3/8 x 1½ „ „

### PLANED GOODS.

100 squares 1½ x 8 u/s Yeo. T & G.  
125 „ 1¼ x 8 „ „ PE  
450 „ 1½ x 7 „ „ T & G.  
400 „ 1½ x 7 „ „ PE.  
100 „ 1½ x 6 „ „ PE.  
400 „ 1 x 6½ „ „ PE.  
400 „ 1 x 5 „ „ PE.  
200 „ 7/8 x 5½ „ „ PE.  
500 „ 3/4 x 5 „ „ TGB.  
200 „ 5/8 x 6 „ „ TGB.

*Very keen prices will be quoted on application.*

**INQUIRIES INVITED FOR ALL CLASSES OF MOULDINGS.**



of a big town certain matters in addition to the main commercial work of the city will always remain centralised, but there is no reason why the greater part of the life of the inhabitants should not be localised in more or less defined communities having their own local government areas, their localised minor industries, shops, markets, and other businesses, and particularly their localised educational and recreational facilities. The efforts to promote neighbourhood centres in American cities, and the tendency at home to develop local theatres, institutes, and recreational centres are signs of the general dissatisfaction with the present suburban dormitories which are occupied by people who spend their lives rushing about the city from one centralised function to another. If great cities are to continue to exist on the scale which we know to-day, a satisfactory life in them can only be provided for the whole of the citizens on some such basis of localisation as here suggested. Such a reorganisation of city development can hardly take place as the result of haphazard growth. The impulses towards localisation may be strong, the dissatisfaction with the present condition of life, industry, recreation, and transport in the great city may be deep, but without some general guidance and control these impulses cannot produce a satisfactory disposition.

In the largest cities, such as London, Paris, or New York, the problem presents itself acutely as one of traffic congestion. There is a tendency in some quarters to attribute traffic difficulties mainly to the decentralisation of population. It is open to question whether this is not a fallacy, and whether traffic difficulties are not much more due to the want of any rational localisation of life, which well-regulated decentralisation would greatly facilitate.

The congestion, instead of being increased, might be reduced, and the time measure of the journeys curtailed, if a larger number of fully occupied non-stop trains could be run from outer suburbs or satellite towns direct to the central stations. If at the same time the traffic congestion in the city itself could be greatly relieved by the increased localisation of life of all the remaining members of the family, their dependents, and those who minister to their daily wants, a very considerable reduction in journeys might be effected. This would follow from the adoption of the satellite town system of development, as compared with the inner suburban development, which really involves that all members of the family and even the dependents and small tradespeople who minister to their daily wants are on and off the different means of transport for nearly every purpose throughout the day. The nearer people live to London the less distance will they usually walk on any occasion and for any purpose, and the greater will be the number of pennies which they will have to find for their families' train and 'bus fares.

Assuming that a careful survey of the conditions should confirm the general contention here made, the question arises as to how far it is possible for the growing city, through the medium of town-planning, to secure an end in itself so desirable as the greater localisation of life. Proper distribution of the parts of the city, and the clear definition of the various areas, would do much to secure this. Each area in which it is intended to develop a localised life must, of course, be provided with every facility for all the different branches of life that it is practicable to localise. There should be local work and occupation for as many as possible of the people living there; there should be local markets and shopping centres to provide for their daily needs; there should be educational and recreational facilities.

It will be found that the proposed distribution will largely depend on the proper apportionment of open space around each area; and that this open space will serve two main purposes. It will provide all the opportunities for recreation, gardening and so forth, and it will give a degree of definition to the area and separation from other areas which will emphasize the locality as a defined unit.

There is one alternative to the redistribution of the population of our great cities horizontally which must

not be overlooked, for it has been recently advocated with some authority that a better solution would be to provide for expansion vertically. There is a certain plausibility in the suggestion that the piling of houses one on top of the other, and thus increasing the number of people who can live on the central areas of the town, would reduce transport difficulties and would generally be an advantage to a people all anxious to share the supposed benefits of living near the centre. It is a proposition having much the same preliminary appearance of obvious truth as the now exploded theory that the crowding of the largest number of houses to the acre is necessarily the most economical and paying way of developing land. It is rather interesting in this connection to remember that many of the great cities in America where this solution has been put to the most complete test, so far from being satisfied with the result, are making the greatest efforts to check what they regard as a serious evil, and are securing legislation to limit the height of buildings and to limit them as drastically as the conditions which have grown up will allow. Even if man were merely a commodity to be warehoused in the most convenient way, for economical housing and handling, it would be very questionable whether expansion upwards would be a satisfactory solution of the big town problem; but if we are to regard the citizens of a town as human beings, and if we consider the main purpose of the town to be that of providing the healthiest and fullest life for its citizens, and particularly for the children, it is difficult to find even a case for the proposal for expansion upwards—at any rate as applied to the residential areas of the city.

The whole of the case for the reconsideration of distribution and for the localisation of the life of the people is based on the belief that the city exists for man and not man for the city; and there is a form of life with which we are all familiar, that is the most satisfactory and gives the greatest opportunity to the individuals, that is—life in a community large enough to give adequate variety of capacity and interest but sufficiently limited to maintain in the individuals a sense of interest in those around them as members of the same community. There is only one remedy consistent with the maintenance of the great city as we know it, and that is to convert the great city into a group of smaller ones, each of which becomes a definitely localised community having its defined areas, its accessible spaces of open country defining that area, and having its life mainly localised within that area, but enjoying, in addition, some increased advantages due to the fact that this community unit has itself become a member of a larger unit, the great city which collectively can give to it certain opportunities, both commercial, industrial and cultural, which are beyond the reach of the individual small town. This alternative structure for the great city is one worth trying, for it offers more probability of success than any other. In the first instance, the future development of existing towns could be more and more guided in this direction; extension plans should more and more provide for the development of self-contained and clearly defined suburbs, and not mere extensions of the existing town; where practicable, we should encourage satellite towns and look to this type of development as one to be more and more depended upon; and, moreover, we should seriously take in hand the zoning of our existing urban areas with a view to their gradual disentanglement and the ultimate creation of definite districts or wards having considerable localised life, which would be encouraged by the provision of suitable civic central areas and recreational facilities, and by the development, as far as may still be practicable, of defining lines of park or parkway, fixing both visually and to some extent practically the limits of the area occupied by each ward community.

In addition to the question of zoning, the concurrent problem of the distribution of land-values must be squarely faced and solved. As the town planner distributes the functions of the city and limits the user



# Strong and Brilliant



Strength in an electric lamp means low renewal cost : brilliance means better light. Mazda Lamps possess these qualities in the highest degree. Previous incandescent lamps had fragile filaments which could be broken by the slightest jar. The

filaments of Mazda lamps are made of drawn tungsten wire which has a greater tensile strength than steel. As to brilliance—the Mazda Gasfilled Lamp is eight times as brilliant as any preceding type of incandescent lamp

**MAZDA**  
Drawn  
Wire  
**Electric Lamps**

Made in Rugby

*Lighting Advice Free.*

Mazda Lamps are used in the Royal Palaces  
Houses of Parliament, G.P.O., War Office,  
Admiralty, and by the most important Industrial  
and Commercial Firms throughout the Country

**The BRITISH THOMSON-HOUSTON CO. LTD**  
Mazda House, 77 Upper Thames Street, London, E.C.4  
Works: Rugby

Branches in all large towns



of the different areas, so he inevitably distributes land-values, creating and destroying values which have been based on a prospective continuance of haphazard development. As a result of his work some owners, whose land chance growth would have left lying unused, will benefit; and others whose land might have been built upon if it had not been set aside for open space, or limited in its use, will be deprived of anticipated increase of value. In fairness alike to the owners of land and to the public, this difficulty must be dealt with! A method must be found whereby the distribution of values can be equitably handled, the increase on certain areas being utilised to compensate those individual owners whose land may suffer relative decrease of value owing to the town-planning activities. Some American cities have already found a working solution of this problem, which is worth a more serious study than we have yet given to it.

In planning to meet these larger and smaller distribution problems, the importance should be emphasised of leaving space for the expansion of each of the parts. Careful planning can secure this with very little inconvenience to any of the parts meantime: for example, there is no necessity to detach the business area from the residential area in order to leave room for the expansion of the latter; but it is necessary that land within the areas defined by the main communicating streets should be reserved for future expansion of commercial or business areas, and that residential areas should not be allowed to crowd up the whole of the space round the small business area with which a new town or suburb may commence its existence.

### The Society of Architects Victory Scholarship Competition, 1920.

THIS Scholarship was instituted in 1919 by the Council of the Society to commemorate the services of members of the Society in the War, 1914-18, and to perpetuate the memory of those who fell. It is open to any British subject under the age of thirty-five years.

The first "en loge" twelve-hour esquisse was held at the Society's Atelier, 28 Bedford Square, London, W.C.1, on Saturday, May 1, 1920, the subject being "The Great Doorway of a National Pantheon." The object of this programme was to ascertain the ability of the competitors to study the proportions and attributes of monumental architecture and to impart correct expression to the subject.

Twenty-five candidates competed, and the Jury of the Royal Academy Ateliers, Messrs. Robert Atkinson, F.R.I.B.A., Professor Richardson, F.R.I.B.A., and Mr. Arthur Davis, F.R.I.B.A., nominated by the Council of the Society as assessors, selected ten of the candidates to sit for the final competition on June 5. This consisted of a twelve-hour esquisse, the subject being "A National Manufactory for the Production of Porcelain," the finished design to be completed within six weeks. The object of this programme was to test the ability of the competitors to grasp the possibilities of the scheme and to group the buildings harmoniously.

Nine out of the ten candidates competed in the esquisse, but only two of them completed their designs, the others being prevented from doing so owing to unforeseen circumstances arising over which the Society had no control. The Council, therefore, decided, in agreement with the competitors, to divide the 1920 final competition and the prize of £100, to duplicate the medal, and hold another esquisse and competition on October 9, with a different programme open to all candidates who took part in the final competition on June 5. The subject of the additional competition was "A Lecture Amphitheatre forming part of a group of buildings housing Scientific Institutions." There were four competitors, and their designs had to be submitted by December 13. The Jury assessed the whole of the drawings submitted in both competitions and awarded the prizes as follows:—

Competition A (Porcelain Factory). Design No. 5.—Trenwith Wills, A.R.I.B.A., 24A Yeoman's Row, Brompton Road, S.W. 3.

Competition B (Lecture Amphitheatre). Design No. 8.—F. P. M. Woodhouse, A.R.I.B.A., Southmead, Wimbledon Park, S.W.

The prize money (which by the terms of the competition is to be utilised for educational purposes) and the gold medals were handed to the winners by the President of the Society, Sir Charles T. Ruthen, O.B.E., F.R.I.B.A., at the annual general meeting on Thursday (Jan. 13), when the whole of the drawings were on exhibition, and the members of the Jury attended and gave a criticism of the designs, having previously reported that in their opinion the majority of the esquisses for both competitions displayed great merit and promise, and that it was unfortunate that the competitors who submitted their esquisses for the first competition did not complete the final designs.

#### PERSONAL NOTES.

Mr. Trenwith Wills, A.R.I.B.A., the winner of Competition A, received his architectural education at the Liverpool University School of Architecture, the Royal Academy Schools, and the Atelier of Mr. Fernand Billerey. He won in 1914 the Tite prize of the R.I.B.A. During the War Mr. Wills served with the Essex Yeomanry, and also in Egypt and Gallipoli in 1915. In 1920 he won in competition the awards for designs for the R.I.B.A. and the Royal Academy War Memorials.

Mr. F. P. M. Woodhouse, A.R.I.B.A., the winner of Competition B, received his professional training at the Architectural Association Day Schools, which he entered in 1912. He won the second year Travelling Studentship in 1914, and the British Institution Scholarship in Architecture in 1915. Mr. Woodhouse was rejected for active war service, and was for several years in the Technical Department of the Air Board. He afterwards entered the office of Mr. Robert Atkinson, F.R.I.B.A.

### Royal Institute of British Architects.

A COUNCIL meeting of the R.I.B.A. was held on January 3, at which the following decisions were arrived at:—

*The Bristol Society of Architects.*—The Council approved of proposals laid before them by the Bristol Society of Architects for the reorganisation of the Society and the widening of the scope of its activities.

*The Scale of Fees for Housing.*—The Council agreed to co-operate with the Council of the Surveyors' Institution in negotiating with the Ministry of Health in regard to the agreed scale of fees for housing work.

*Retired Fellowship.*—The following Fellows were transferred to the Retired Fellowship Class:—C. Lohr (A. 1878, F. 1906), G. D. Oliver (A. 1877, F. 1892), Edwin Seward (A. 1876, F. 1889), John Wynne (A. 1875, F. 1878).

*Reinstatement.*—Mr. W. A. Gagnon was reinstated as a Licentiate.

*The Annual Dinner, 1921.*—It was decided to hold the Annual Dinner of the Royal Institute early in the year, and a committee, consisting of Sir Banister Fletcher, Mr. Wm. Woodward, and Mr. Arthur Keen (Hon. Secretary) was appointed for the purpose of making the necessary arrangements.

*Professional Defence.*—The Council have decided to re-submit to the General Body the scheme for the foundation of a Professional Defence Union which was laid before a Special General Meeting on June 15, 1914.

TENEMENT buildings are being erected for the Stepney Metropolitan Borough Council at Jubilee Street, Mile End, under the supervision of the borough surveyor, Mr. M. W. Jameson. Messrs. E. A. Roome & Co., Ltd., of Crown Works, Hackney, are the building contractors.



## CONTENTS.

Henry T. Hare . . . . .	PAGE 47	Birmingham Architectural Association . . . . .	PAGE 55
Illustrations . . . . .	48	Forthcoming Events: Competition News . . . . .	55
Notes and Comments . . . . .	48	Inquiry into the High Cost of Building . . . . .	55
London Art Galleries . . . . .	50	Correspondence . . . . .	56
Art News of To-day . . . . .	50	Memorials in Llandaff Cathedral by Felix Joubert . . . . .	57
The Failure of State Housing . . . . .	51	(Illustrated) . . . . .	57
"The Architect" Fifty Years Ago . . . . .	52	New Books . . . . .	58
The Royal Institute of British Architects . . . . .	53	An American Lawyer's Views of an Architect's Difficulties . . . . .	60
R.I.B.A. Prizes and Studentships . . . . .	55		

## Henry T. Hare.

In the precession of time the work of any given man comes prominently before his fellows for a brief epoch, to become a faint memory to all but a few contemporaries. We in the present are never independent of the past, but for the most part we become strangely forgetful of its incidents. We say strangely forgetful, for nothing we achieve would be possible were it not for the labour of those who have gone before us, though few can hope to attain to even a brief resting-place in the Temple of Fame.

To those who were contemporaries of Hare it seems but a short time since the closing decade of the nineteenth century, in which he first made his mark before the public as an unusually skilful planner and the winner of important competitions. He was singularly well fitted for the labour involved in the competition struggle, and during his lifetime he saw both the climax and decline of the system under which almost every public building was put out to competition, mostly of the "open" order. While working in other men's offices during the day, he gave up almost the whole of his leisure to preparing competition designs at night, and his only period of rest was, we believe, limited to one night in each week. He had won several minor successes when, after being placed first by Mr. Colcutt in the competition for municipal buildings at Oxford, and by MacVicar Anderson for the County Council offices at Stafford, he started independent practice, and for the best part of twenty years succeeded in winning a large proportion of the more important competitions open to the profession.

His greatest gift was a talent for ingenious and utilitarian planning, which by comparison with that of most of his contemporaries was markedly compact and direct. In this he may be said to have established a vogue, and the great improvement in the planning of our public buildings was largely the result of his example. From an architectural stand-

point his work was always marked by a strong predilection for picturesque effect, in marked contrast to the greater classicism of J. M. Brydon, whose work would have received far more ample recognition at a later date than it did from his contemporaries. Hare's predilections led him to study the buildings of the freer English Renaissance, and his work at Oxford was based on it. Few buildings have been so freely criticised, but, though it may appear to our present standpoint as over ornate and unrestrained, it must be admitted to be a skilful and successful essay from the standpoint of the time at which it was built. Possibly its best point was the

treatment of the long, irregular front to Blue Boar Lane. The Stafford County Council offices marked, if anything, a higher standard of achievement. Hare was especially successful in the planning of libraries, a large number of which he competed for and built, and we well remember Brydon's ungrudging acknowledgment of the skill shown in the planning of Wolverhampton Library, for which he was a competitor. Among Hare's fellow competitors were often Brydon and Mountford, both of whom he usually out-planned, and Gibson and Russell. He yielded more slowly than most of his contemporaries to the growing tendency to work in a more classical manner, and like many of those



THE LATE HENRY T. HARE.

who yielded from expediency rather than conviction it was probably a pity that he did not adhere to a manner with which he was in sympathy. Such buildings as the National Provident Institution's Offices in the Strand marked a halt between two schools of thought, and are restless and unsatisfactory in their character. His collegiate buildings were among the best work he designed, the Presbyterian College at Cambridge being excellent in character, while his last great work, the North Wales College at Bangor, won in limited competition and carried out on Gothic lines, is probably the best building he ever carried out.



The original competition design was scrapped, as a fresh site of an irregular character was selected, and on it Hare designed a fine and picturesque group of buildings reminiscent of some of those at Oxford and Cambridge.

The closing years of his life were chequered by ill-health, which forced him to retire from many of the activities of a professional life, in addition to which he was less fitted for success, as he had in many ways been outstripped by younger men brought up in a different school of thought on subjects of design. It is natural that these very men should perhaps fail to realise that Hare's work and its influence made it possible for them to obtain a new position in the chain of architectural development which without it might not have been effected.

Hare had passed some considerable time in the Ecole des Beaux-Arts at Paris, and the fact that this left absolutely no trace on his work is a sign of the distance which separated him from the influences now paramount among our younger designers.

With the tendencies of later years, one of which may be said to be the attempt of architects to find a common ground of understanding with the public in the investigation of architectural subjects from the standpoint of their relation to civic life, Hare was never in sympathy, as he was purely an individualist attached to and interested in a special profession.

He was a President of the Architectural Association and a member of the Institute Council, of which body he became President; but he was never keenly interested in public work, except in so far as it affected definite professional interests. He frequently assessed competitions, but it cannot be said that he was either a great or particularly

successful assessor, as his standpoint was seldom sufficiently judicial or free from prejudice. He would say that his method was to pick out a few designs whose elevations pleased him best, and select what he considered as the best plan among them. As planning rather than design was his strongest point, this was a curious instance of placing the cart before the horse, of which the profession has unfortunately seen too much.

To sum up, Hare will be remembered as being among the most successful men of an age which was pre-eminently that of competitions; while the best of his work, if not of the very highest order, was well in advance of that of the bulk of his contemporaries. His legacy to his fellows is that he was one of the foremost among architects to realise an ordered system of planning and to express his conviction in his work, and his exceptional success was well earned by untiring industry and perseverance in which few equalled him. If genius is rightly described as an infinite capacity for taking pains, Hare possessed it in an unusual measure; but if the highest architectural achievement is impossible without inventive imagination, insight, and sympathy, Hare fell short of the mark. To say he had no imagination would be untrue, as without it no man could achieve any measure of success in design, but his work was the outcome of untiring effort utilised in one direction, and he was practical and constructive rather than imaginative and sympathetic; nor was he, like some men, helped by the magnetism of personality.

His practice will, we understand, be carried on by Mr. Bertram Lisle, who in later years has acted as his partner.

### Illustrations.

MEMORIAL TO THE LONDON TROOPS, IN FRONT OF THE ROYAL EXCHANGE. SIR ASTON WEBB & SON, Architects.  
MEMORIAL CROSS, IWERNE MINSTER, DORSET. G. GILBERT SCOTT, A.R.A., Architect.  
PROPOSED WAR MEMORIAL, BRIDPORT. G. GILBERT SCOTT, A.R.A., Architect.  
DESIGN FOR PROPOSED MEMORIAL CROSS, HANMER. G. GILBERT SCOTT, A.R.A., Architect.

### Notes and Comments.

#### The Destruction of Enterprise.

MR. P. E. ROBERTS writes an excellent letter to "The Times" under the above heading, in which he deals with the unwisdom of the Rent Restriction Act, and points out how it defeats its own object. If we take a concrete example, he says, we may assume that in a certain town there are 50 vacant houses and 100 people who want them. They can be let for £75, and 50 applicants are willing to pay this amount, the remaining 50 having to go without. The obvious effect is that new houses will be erected which will tend to bring down rents to a lower level, whereas if the rents are restricted to £50 the inducement to the speculator is done away with and enterprise is checked. This is what has been happening all over the country, with the result that the shortage of houses wherever they are most wanted has been accentuated, and a fresh province has been created for governmental interference. This is apart from the ethical absurdity of punishing those who have provided a necessity because it is a necessity. Had the house builder or speculator of the past invested his capital in chewing-gum or picture postcards he would have not been interfered with, but because he has done useful and necessary work he is singled out for punishment. But we believe the increased incidence of economic facts may in the course of the next twelve months result in the sweeping away of the evil and impossible structure which our rulers are unwisely attempting to shore up.

#### The Wisdom of The "Builder."

THE "Builder" in its New Year's number delicately rebukes us for our criticism of what it said a year ago. We were then told that "Time is not energy. Time is worth nothing but what it contains." We found these cryptic sayings amusing twelve months ago, and we find them equally amusing now, and we believe our amusement would be shared by scientists. However, our contemporary goes on to say—

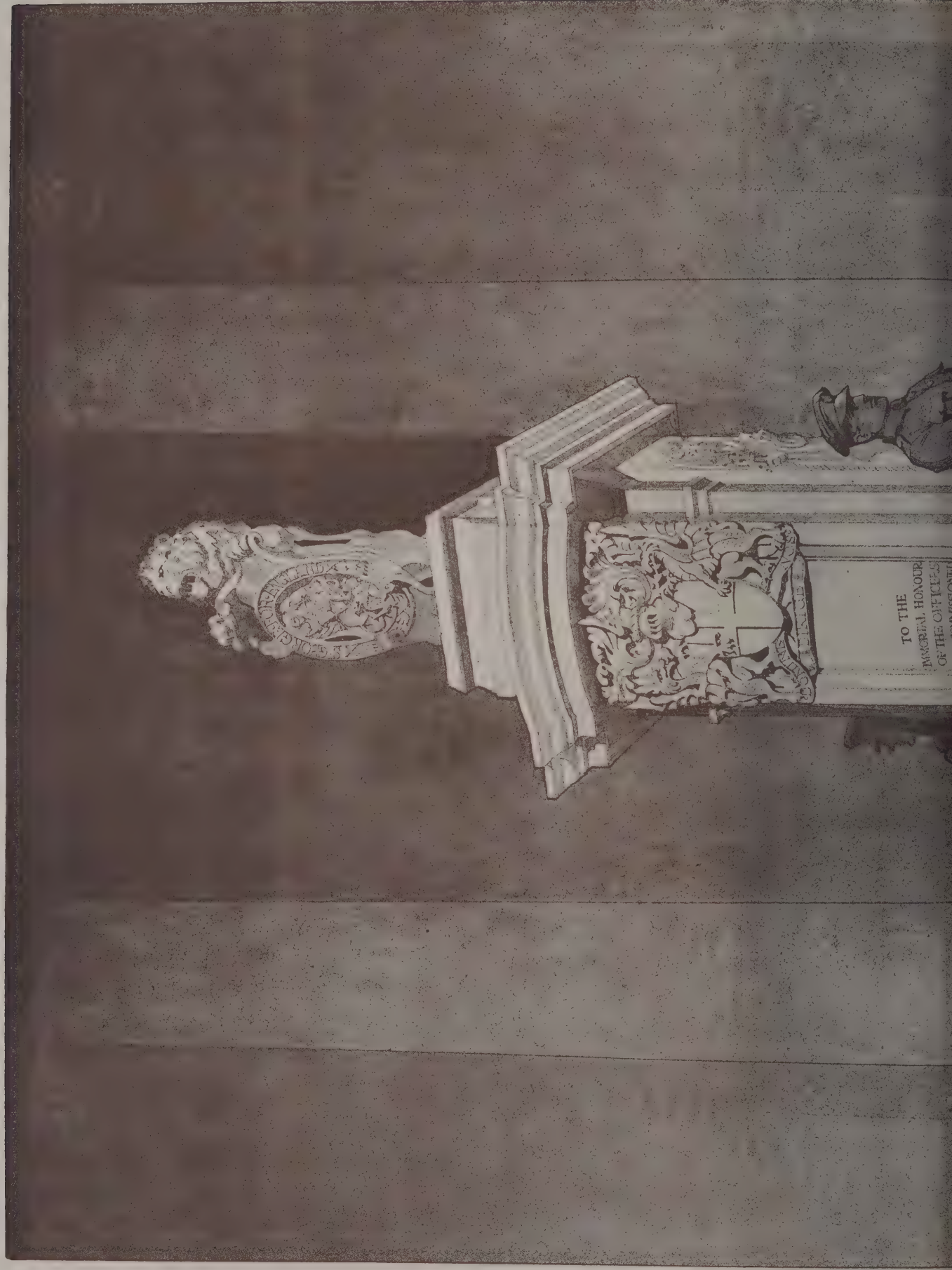
"The suggestion of this merry-maker was that we were indulging in platitudes, and in particular he smiled at our statement that time and work are not equivalent. Laughter from any quarter on such a point is good, for it is indeed ridiculous that a statement of this kind should be worth the making. It is a joke, but a very grim one, and very near to tears; for the preposterous mistake that time and labour are equivalent to the degree of being worth the same in money-payment is to-day not a music-hall jest but a hideous axiom of our mad economic system."

We do not think that even Labour believes that time and labour are equivalent, but what it does believe is that it has sufficient power to compel the payment of maximum rates for minimum services, and that it can in some mysterious manner secure such rates in defiance of all known economic laws. While we are on the subject we may quote another saying in the same article of last year's date which also amused us: "The best of the best will no longer stand this theft of what is due to them." This may be taken in many senses, but should





THE ARCHITECT, JANUARY 21st, 1921.







MEMORIAL TO THE LONDON TROOPS, IN FRONT OF THE ROYAL EXCHANGE.

SIR ASTON WEBB & SON, ARCHITECTS.









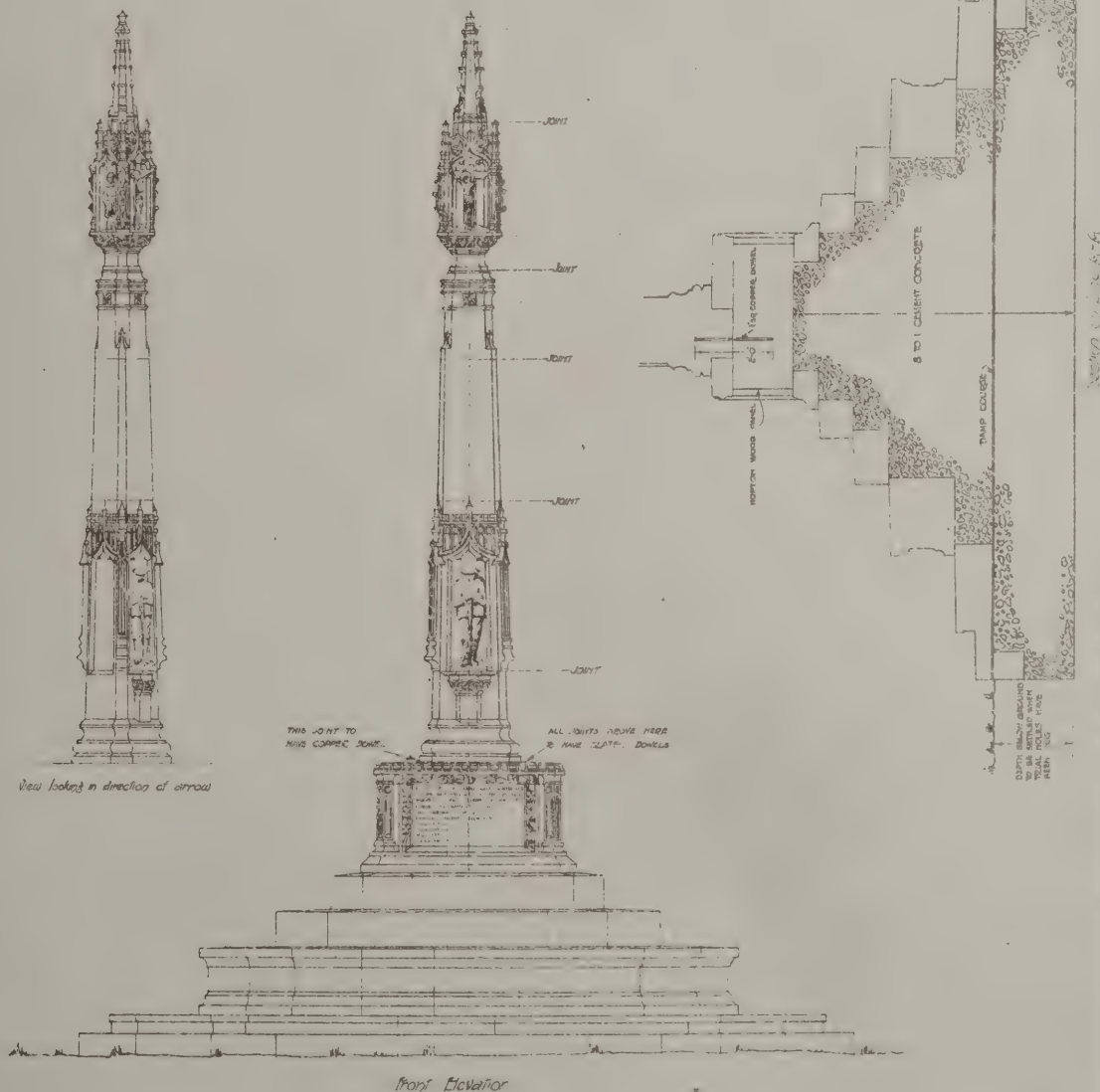
MEMORIAL CROSS IWERNE MINSTER, DORSET.

G. GILBERT SCOTT, A.R.A., ARCHITECT.



PROPOSED MEMORIAL CROSS,  
IWERNE MINSTER,  
DORSET. —

6 GILBERT SCOT. 4 R. 1 ARCHT  
7 GRAYB INN SQUARE N.C.













console a philanthropist who has just been robbed, as he may hope for the coming of a better system under which such events would be impossible. We often find unconscious humour more amusing than intentional wit, and place the remarks of our contemporary in the former category.

### Painting and Unemployment.

MESSRS. LEWIS BERGER & SONS, the well-known paint and varnish manufacturers, send us a letter in which they advocate the carrying out of painting now instead of in the spring as a means of reducing the volume of unemployment. They state that the movement is meeting with considerable success, which we are glad to hear. Outside painting naturally cannot with advantage be undertaken in broken winter weather, but this objection does not hold good with regard to internal painting. We must remember that if a large number of painters are unemployed the result is probably in some measure due to the fact that painters have been among those whose output has been lowest, and painting has been much more sparingly carried out everywhere than would have been the case if the painter had been more worthy of his hire.

### The Building Gild Contracts.

WE cannot quite follow the position which has arisen as between the Ministry of Health and the Building Gilds, but we think, after reading between the lines, we may assume the following to be a correct explanation. The Ministry, like a drowning man, caught eagerly at the Gild proposal, hoping to find in it a means of converting a paper programme into actuality. In this mood they made certain definite proposals to the gilds which, among other consequences, led to the resignation of Mr. Stephen Easten. In consequence of the public statements then made, the Ministry amended its proposals to the gilds, who now accuse the Ministry of a breach of faith. They also object to the Ministry's proposal to regard the matter in the light of a tentative experiment to be limited until proof of the gilds' assertions can be given. As things stand, what we believe to be a customary incident in the misfortunes attending the Government's methods of handling industrial matters only adds to the confusion which will exist until they confine themselves to their proper function of administration.

### Labour Councils.

WE do not know what may happen before the next municipal elections take place in those boroughs where the slackness and apathy of electors have resulted in placing power in the hands of Labour Councils. At Islington a proposal is made to spend £500,000 on new Municipal Buildings and the proceedings of the Council as reported in the Press show us how utterly unrepresentative of sanity such local government may be. At Glasgow a Labour Council have decided to go in for municipal brick-making and estimated that bricks could be produced locally for 47s. a thousand. Fletton bricks which furnish one-third of the whole production of England are produced in enormous modern kilns which require an unusually small consumption of fuel cost 58s. a thousand, and are sold in other districts in England at 80s. to 90s. a thousand. In other words there does not seem to be the slightest chance of the municipal experiment of Glasgow succeeding. It would be a good thing if some central authority could put a limit on the experiments which local bodies might make, because tax-payers are placed between the Scylla of government expenditure and the Charybdis of municipal extravagance, and the first of these evils is surely sufficient for any of us.

### Illustrations.

WE were forced to hold over some illustrations of monuments in our last issue and now give Sir Aston Webb and Son's memorial to the London Troops; and the memorials at Bridport, Hanmer, and Iwerne Minster, by G. Gilbert Scott, A.R.A. We shall be giving further memorial schemes later.



BRIDPORT WAR MEMORIAL.  
G. GILBERT SCOTT, A.R.A., Architect.



HANMER WAR MEMORIAL.  
G. GILBERT SCOTT, A.R.A., Architect.



## London Art Galleries.

(All Rights Reserved.)

THE tenth annual exhibition of the National Portrait Society was opened on Tuesday, January 11, at the Grafton Galleries, and gives this year an exceptionally interesting collection of portraits. The private view on the opening day of these particular exhibitions is always something of a social function, and the afternoon towards three o'clock found the rooms of the Grafton Galleries filled to overflowing with a crowd which mingled, and seemed to harmonize, the different worlds of London society and art.

The National Portrait Society does not confine its exhibits exclusively to modern portraiture, and it was interesting this year to compare with modern work in this direction an early Sargent (portrait of Mrs. Ricketts), and going yet further back a good head and shoulders by William Etty, R.A. (portrait of Miss Mallory)—looking surprisingly modern, when we consider that this artist's dates were 1787-1849—and Winterhalter's fine full-length of H.M. Queen Alexandra, lent from Marlborough House. Coming now to the moderns, the first gallery contains some excellent portraits, commencing with the head and shoulders by Jacques Blanche of the veteran poet, Thomas Hardy, and William Nicholson's characteristic study of Miss Jekyll. Alvaro Guevara's "Author of Modern Sculpture" is, to my judgment, much better than his work now exhibited in the New English Art Club, and near it Glyn Philpot's "Lady Sybil Grant" is harmonious in the quiet tones of black and grey. This room contains also Sir John Lavery's portrait of Cardinal Hogue, Laura Knight's "Study of a Woman," almost brutal in its directness, while Louis Thomson's "The Crimson Hat" has charm of colour, and W. B. E. Ranken in his finely-handled "Lady or the Vase" leaves us before an embarrassing alternative.

Coming next into the large Gallery, we are pretty sure to be arrested before the fine group of six portraits—Nos. 48A-53 inclusive—by Augustus John. I have seen no display so important of Mr. John's portrait work since the memorable exhibition of last spring in the Alpine Club Gallery: and I find the opinion which I formed then of this artist's wonderful feeling for colour confirmed here in such a subject as "A Glass of Wine"—where the young lady herself in her colour scheme seems to suggest "the king of wines" (which, by the way, I am told on good authority, is claret),—and in the delicious silvery tones of "The White Mantilla." Mr. John is always at his best in male portraits, and shows strong drawing in his "Sir Robert Woods," though his best portrait here, to my mind, is his three-quarter-length of Sir Archibald Sinclair, a piece of clean vigorous painting. Mr. Gerald Kelly approaches us in this room in a "Goyesque" mood, though his "Goyesca, No. III." is hardly on the level of the great Spaniard, and I prefer his "Black Mantilla" or his "Consuelo." Nor is Ambrose McEvoy at his best here in the elongated full-length of "Mrs. Redmond McGrath"; but is far more himself in his delightful water-colour portrait studies—Nos. 162, beginning with Miss Julia James, to 171—in the End Gallery, where are also to be found some of R. G. Eves' admirable charcoal portrait studies (Lt.-Col. W. T. Boscawen, D.S.O., and the Hon. Pamela Boscawen) and ten of Mr. John's drawings.

Besides the above I noted Algernon Talmage's "By Cornish Sea," a portrait study which won very high recognition in the Pittsburgh International, W. B. E. Ranken's freely-handled portrait of "Mr. Robert Webb," a portrait sketch by David Jagger, Mlle. Zabelle Boyagian's portrait sketch of her compatriot, the Armenian General Antranik, and Ishibashi's "K. Momura, Esq."

The new English Art Club is giving its sixty-third exhibition at the Royal Water Colour Society's Galleries from December 29 to January 27. This cannot be called a successful exhibition as compared with those of

previous years: I recorded last year my impression of the very effective hanging, but this time the general effect is dull and unattractive. Taken in detail there are some interesting works here, notably among the water colours on the first wall, which holds paintings by David Muirhead "Norfolk Broads," Wilson Steer, A. W. Rich "Ludlow" and an admirable study of "Canal at Norwich," and Muirhead Bone "Fish Market, Dieppe," while of the two Wilson Steers I prefer his "Boats on the Blackwater." In the oil paintings on the next wall we find David Muirhead again in his sound and careful "Head of a girl by lamplight"; but Alvaro Guevara can do much better than his preposterous "Signs of the Zodiac," which has been aptly described as "a kind of harlequinade in *puris naturalibus*," its main feature consisting of undraped and most unlovely nymphs, some lounging on the ground, while their sisters are shooting through the heavens with the velocity and appearance of rockets. Gilbert Spencer's "Shepherds amazed" is a novel rendering of the story of the Nativity, painted in a cold grey tone with a kind of resolute audacity, but by no means without a certain merit. Among the landscapes I noted Mr. Gwynne Jones's "Provençal Valley," and Fairlie Harmar's "Old Farm House, Cheyne Walk," and the strong drawing in "Ashness Bridge," by C. J. Holmes; Ethel Walker's "Mrs. Albert Solomon" is a good portrait study.

The Leicester Galleries opened again this month with an exhibition of pictures of "Irish Life and Landscape," by Paul and Grace Henry, who have been living, I understand, in the Achill mountains in Connemara; and give us here their impressions, some of which were, as I believe, exhibited at Oxford last year. I consider some of Paul Henry's landscape work distinctly good, a fresh and direct study of nature: good examples of this are "Early morning in Connemara," "The Road," which is fine in its spacing and treatment of cloud, and "A Winter Sea"; of the two Grace Henry seems to be the figure artist. I prefer to wait for a later opportunity to endeavour to come to grips with the Picasso exhibition which fills the inner room in these Galleries, and which needs a fresh mind and some courage. My impression so far, which I reserve to myself the liberty to revise, is that of an artist of considerable parts, who at some period in his life has been attacked very badly by Cubism and broken loose into a kind of pictorial jigsaw puzzle. In his "La Dame au Fauteuil" careful investigation seemed to reveal nothing resembling either an armchair or a human being. The artist is evidently a Cubist of the first water; and we incline to agree with the suggestion that "in a gallery full of Cubist pictures no amateur fails to spot the Picassos."

S. B.

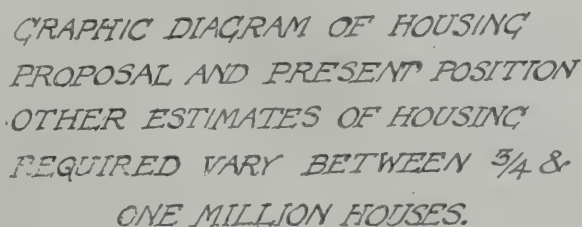
## Art News of To-day.

THE sale of Eastern rugs and carpets at Messrs. Christie, Manson and Woods, which we mentioned in last week's issue, realised some good prices. The large Persian silk carpet, which we then mentioned specially, with its design of foliage and arabesques on a red ground, and border of red and pale green, fell to Mr. Smith for 265 guineas, while two Persian rugs with coloured panels brought £67 4s., and a Persian carpet, £210. An important sale, on Tuesday, January 25, is that of arms and armour, the property of the late well-known actor, Mr. Weedon Grossmith, besides other armour from different properties; Mr. Grossmith's contribution here represents some thirty pieces, and among these is the early fifteenth-century two-handed sword, with the maker's mark which was until recently a loan exhibit at the Victoria and Albert Museum.

A fine suit of seventeenth-century "cap-à-pie" armour was among the Byron relics sold this month at Newstead Abbey, Nottingham, and brought 150 guineas. At this sale the furniture was of good quality as well as personal interest. A Jacobean bedstead, of date 1627, brought 200 guineas, and Lord Byron's walnut dressing-table sold for 270 guineas.



A great part of this expenditure is made necessary because Government has interfered in the building trade between employer and employed, and the latter have put forward utterly unreasonable claims because they imagine that they can force those in authority to carry on work which no private builder who was sane would contemplate. Now a millionaire philanthropist may throw away money in altruistic schemes, and we may shrug our shoulders at his folly, but it is quite another





thing when those responsible for the Government of England tax the country up to the hilt in order to carry out a policy which all sane men warned them was impossible and ruinous from the start. No one else can now build for the working man, for Government has upset the market, firstly, by bringing about the disorganisation of the whole building industry by their interference; and, secondly, because they are in a position to offer the workers houses at the taxpayer's expense.

And the whole of this procedure has been causeless. It was easy for them to insist by the institution of such legislation as the Housing and Town Planning Act that a limited number of houses should be erected on an acre of land, it was easy for them through local by-laws to insist that only dwellings of certain minimum requirements should be erected. Had they done this speculators would have been forced to build up to the legal standard, and they would have done so and still provided automatically for the wants of the people without the interposition of State aid. We have heard it said that the standard of design adopted by the speculative builder was a disgrace to this country, but we fail to see in a great bulk of the State-aided housing schemes that a very great improvement will be effected. We are not sure that we shall not in a few years be almost as weary of the new standard as we were of the old. But, supposing we are wrong in assuming that the adoption of the Housing and Town Planning Act would have effected the objects required, it is conceivable that every town and district might have employed expert aid to set up standards of design, which should have been adhered to, or committees of taste might have been appointed in every district with powers to reject unsuitable designs. Examination of the newer suburbs and towns will usually prove to us that the general standard of design of even the poorer class of dwellings was being gradually improved, and the difference between this and the approved designs published by the Ministry of Health is hardly worth many millions of pounds a year. We also say without hesitation that many of the houses now erected will not be much better built than those of the smaller class of speculator which they replace.

And, as an able writer in the "Morning Post" points out, our authorities have done away with the occupation of a large and useful body of men whose work afforded some sort of training-ground to boys and men entering the building trade, while at the same time it has stiffened the backs of the unions and made it easy for them to produce a shortage of necessary labour.

The speculative builder employed non-union labour often on extremely cheap terms, he also employed boys and young men who were drifting into the building crafts, and men who were too old to secure the trade-union rates on the better type of contract work. The speculative builder thus obtained his labour at cheap rates, and as his usual course of procedure was to create an improved ground-rent and sell his houses at what was cost price, while he built as many as requirements made advisable, the general community were enormous gainers by his activities. We quite agree that it might have been advisable to regulate his efforts, but that was easily possible without doing away with one of the most useful factors in our natural and commercial life. The working man obtained the housing at the smallest possible rents, a large class of men, many of whom are now unemployed, were kept occupied, and all this without increasing national expenditure. Dr. Addison's policy has resulted in making housing all contract work, thereby increasing its cost, and in inducing the building unions to think that they are absolute masters of the position, with the net result that the country is now paying at least four times as much for every house built as was paid in past times by the speculator. Houses are being built so slowly that the greatest difficulty is experienced in meeting requirements, and an elaborate and unjust system of interference with the rights of free contract has been put into operation. Could greater confusion and discomfort have been created by design?

It is inconceivable that the abortive and ruinous policy of Dr. Addison can be continued by this or any other

Government. The longer it is persisted in the greater will be the final catastrophe which most men see is now inevitable, for we shall in the end have to cut our losses and retrace our steps. We are really in the position of the bankrupt who, by filing a petition now may be able to pay a substantial amount in the pound, while by putting off the evil day he will have no assets to distribute.

We will put a plain question to those who defend the Government's action. Does any man really think with our present knowledge that any body of politicians or statesmen would reintroduce the present housing policy if they stood once again at the parting of the ways? The answer cannot fail to be in the negative, and if so, in the name of justice to the people of common sense and of logic, why not abandon what has been proved to be one of the most colossal if not criminal mistakes ever made in the history of the world?

*Note.*—It is somewhat difficult to dissect the Ministry's figures which are complicated by reference to subsidy houses and the work of Public Utility Societies, work which is practically outside the scope of official management. We believe we have correctly dealt with the main subject—the provision of municipal housing under the demands of the Ministry of Health.

## "The Architect" Fifty Years Ago.

JANUARY 21, 1871.

At a meeting of the Chelsea vestry on 17th inst.—Mr. Livingston in the chair—letters were considered from the Metropolitan Board respecting applications for permission to form certain new roads on the Ashburnham Estate, near Cremorne Gardens, and also to form three new streets, two continuations, and two mews on Lord Cadogan's estate, between Flood Street and Smith Street, King's Road, Chelsea. The Surveyor said it was proposed to put 218 buildings, including ten stables, on the estate, which would raise the rateable value of the land very considerably. He recommended that the Metropolitan Board be advised to grant the application, which report was adopted, on the motion of Mr. E. A. Symons. This land Lord Cadogan was recently asked by the Government to sell for the purpose of erecting cavalry barracks, to replace the Knightsbridge Barracks. The other application stood over for further consideration.

MR. G. RANDLE, architect, Smethwick, has prepared plans for a cinema which it is proposed to erect in Tamworth Street, Lichfield. The scheme has been passed provisionally by the City Council.

The Bath Master Builders have elected Mr. Stanley L. Amor (vice-president) to be president of the Association for the ensuing year, succeeding Mr. C. C. Wills. Alderman A. W. Wills, who has twice been president, was elected vice-president to follow Mr. Amor.

The congregations of St. Mary's and St. Peter's Episcopal Churches, Montrose, have agreed to unite. At a recent meeting held to arrange the various preliminaries, plans were remitted for the remodelling and restoration of St. Peter's at a cost of between £5,000 and £6,000.

DUMBARTON Dean of Guild Court have passed plans for new municipal gasworks. The Dean of Guild remarked that this was the biggest building scheme that had yet come before the Court, and congratulated the gas engineer, Mr. Bell, on the plans. The new works will be built at Dumbuck, Dumbarton, and the whole scheme will involve an expenditure of about £130,000.

The Kent Federation of Trades Councils have unanimously passed resolutions urging the construction of a tunnel under the Thames between Gravesend and Tilbury. Representations in favour of the scheme are to be made to the Ministry of Labour and the Ministry of Transport. The scheme, of which the estimated cost is £2,500,000, is for a tunnel for railway traffic to link up the Kent and Essex railways and also a tunnel for vehicular and pedestrian traffic.

MR. BROAD, contractor, Great Malvern, announces as having for disposal a beautiful Gothic private chapel designed by Mr. Norman Shaw, R.A. Its condition is described as being "exactly as new," with mosaic reredos, altar, carved-oak stalls, wrought chancel screen, &c. The chapel is about 54 feet long and is built in grey sandstone, bath-stone dressings, slate roof, leaded windows, oak porch, &c. It can be easily removed and rebuilt. Photos and further particulars may be obtained from Mr. Broad, at Great Malvern.



## The Royal Institute of British Architects.

AN ordinary general meeting of the Royal Institute was held on Monday last, the 17th inst., at 9 Conduit Street, W. Mr. John W. Simpson, president, was in the chair.

Mr. Arthur Keen, hon. secretary, paid a warm tribute to Mr. Henry T. Hare, whose death he announced with the greatest sorrow and regret. It was, he said, but a few months ago that he was speaking of him in that room on the occasion of the presentation of Mr. Hare's portrait to the Institute; and a few months earlier still Mr. Hare was acting as their president. There were very many in the profession whose assistance would be of the greatest importance to the Institute, but who, for one reason or another, did not give that help. Mr. Hare, on the other hand, overburdened though he was with the weight of his own private work, gave freely of his time in promoting the interests of his fellow members and the interests of the architectural profession at large. As a member of council, vice-president, chairman of committees, hon. secretary, president, and earlier as president of the Architectural Association, Mr. Hare had worked unsparingly. The Institute had suffered a very real and lasting loss. Mr. Keen said he could think of no one who had impressed him more with a sense of his grasp of things, and the directness of his judgment upon them. Mr. Hare would have been the very first to acknowledge how much the Royal Institute meant to him. He sought very little relaxation apart from his work and the interests he found there must have stood for a very great deal to him. It was to be hoped he found compensation for all he did for them. In his professional work Mr. Hare not only established a high standard of planning but he also played a large part in the development of our classic design—which has apparently still so far to go. At the same time, everyone will admit that Bangor University, perhaps Mr. Hare's finest work, showed a full realisation of Gothic. His work was essentially modern, practical and intellectual; he did nothing perfunctory, mean or commonplace. There have been very few architects who served the public as well as Mr. Hare did in providing fine buildings for them.

Mr. John W. Simpson, president, said they all felt the loss of Mr. Hare very deeply. Mr. Hare's life-work should be an inspiration to them all. A vote of condolence with the relatives was then passed by the members rising in their places.

Mr. H. Chalton Bradshaw, A.R.I.B.A., Scholar at the British School at Rome, then read a paper which was illustrated by a large number of slides, entitled:—

### Praeneste: A Study for its Restoration.

The town of Praeneste (modern Palestrina) lies about twenty-three miles east of Rome on the slope of Monte Glicestro, a spur of the Apennines, where the limestone of the mountains runs down into the volcanic plain. The town faces nearly due south towards the Alban Hills, and is in a position of great natural strength, which was made still stronger by artificial means. Strabo mentions it with Tibur as a stronghold, and adds that as such it was the more redoubtable of the two. Its climate is healthy and cool, compared with that of the plain, and in Imperial times it was a favourite resort of those who wished to escape from the heat of the Roman summer.

The origin of Praeneste is quite unknown. Various contradictory legends are given of its foundation. The earliest settlement was probably on the acropolis (now Castel S. Pietro), which at an early date was connected by long walls of Cyclopean masonry with the town which grew up round the sanctuary of Fortune on the lower slope of the mountain. The natural strength of Praeneste and its position commanding the principal routes between Northern and Southern Italy, together with the fame of its oracle, combined to make it one of the most important towns of Central Italy.

Finds of ivory and bronze in the necropolis prove that as early as the eighth or seventh centuries B.C. it had

dealings not only with Etruria but with Phoenicia and the East, while the later "cistae Praenestinae," or incised bronze caskets and mirrors testify to its continued prosperity in the third and second centuries B.C.

Praeneste remained a separate community until the Social War, B.C. 90, when, with other towns which had not rebelled or which had laid down their arms at once, it received the full franchise and became a Roman Municipium.

During the Civil War, B.C. 82, the younger Marius took refuge there after the battle of Sacriportus, and Sulla blockaded the town. On its surrender Marius committed suicide and Praeneste was punished by the slaughter of its male inhabitants, the loss of its privileges as a Municipium, and the settlement of a military colony on part of its territory. Soon after this Sulla, who called himself the favourite of Fortune, largely remodelled the city, placing the forum at the foot of the hill in the plain and rebuilding the Temple of Fortune on a large scale, so that it occupied much of the site of the earlier town.

From this time Praeneste changed its character. Its fine scenery and healthy climate made it popular with wealthy Romans. Villas were built on the plain below and on the neighbouring hills, and Horace ranks it with Tibur and Baiae as a health resort. Augustus stayed there, and it was in gratitude for recovery from an illness in a villa near that Tiberius restored to the town the position of Municipium. It was patronised by other emperors, including Hadrian, and Marcus Aurelius. Pliny the Younger, was among the private persons who possessed villas near.

From the earliest times the fame of Praeneste was bound up with that of the sanctuary and oracle of the Goddess Fortune, who was here worshipped as Primigenia or "First-born" (of Jupiter). The oracle delivered its responses by means of "lots" or slips of wood with letters carved upon them. These were supposed to have leapt from the rock when it was cleft by a certain Numerius Suffustius, according to Cicero, who gives the legend of their origin and also the most important reference to the shrine found in any ancient writer.

Christianity found a powerful opponent in the Goddess Fortuna Primigenia, though the existence of Christians at Praeneste in the third and fourth centuries A.D. is proved by the martyrdom in 274 A.D. of St. Agapitos, and by the record of a bishop of Praeneste as early as 313 A.D. The oracle was finally closed by the Emperor Theodosius, who in 392 A.D. put an end to pagan cults. After this time Christianity conquered, and Praeneste became one of the suffragan bishoprics of the Roman See. The great temple built by Sulla in the upper part of the town became the seat of mediæval barons, and the name of the town itself gradually changed from Praeneste—Civitas Praenestina to Penestrina, Pelestrina, and finally Palestrina.

The earliest notice that we have concerning mediæval Palestrina is the deed of gift by which Pope John XIII. ceded the territory of Palestrina to his sister Stefania in 970 A.D. Her family remained in possession till 1043 A.D., when by the marriage of the last of the line, Emilia, to Stefano de Columna, Palestrina passed into the hands of the Colonna family.

In 1297 A.D. the Colonnas revolted from Pope Boniface VIII., and the next year the city was taken and razed to the ground. But under Clement V. the Colonnas were allowed to regain possession and rebuild their city. In 1437 A.D. the Colonnas again rebelled, this time against Pope Eugenius IV., who followed the example of his predecessor Boniface; and the unhappy city was again levelled with the ground.

Soon after this the Colonnas once more reconciled themselves to the Church, and Pope Nicholas V. (1447-1455 A.D.) gave permission to rebuild the city. This was done by Stefano Colonna, who also restored the



fortress on the site of the ancient acropolis. His son Francesco restored the palace.

From this time the city took on its modern aspect. The Colonnas remained its feudal lords, though with limited rights, until 1630 A.D., when it passed by purchase to the Barberini family, who still keep the title of Princes of Palestrina.

The modern town is a dirty, picturesque place with winding streets that break at intervals into flights of steps. Built into the walls of the many mediæval houses that remain can be seen pieces of cornices, friezes and architraves, while broken column drums and other fragments are to be found in most of the gardens.

Since the Renaissance Praeneste has been the subject of several restorations. These attempts show two main faults. Firstly, temple buildings, colonnades and open spaces all connected with the sanctuary have been made to cover the whole slope of the hill; secondly, a perfect balance has been shown throughout. The reason for this is that early schemes for restoration were made without any exact measurements of the actual remains visible. Discoveries and excavations which have recently been made on the site, though not on any large scale, suffice to disprove these restorations, in all of which imagination plays a large part. Hadfield's [George Hadfield, 1792, *Views and Restoration of Palestrina*. B.I.B.A. Library] is a particularly striking example of this freedom of treatment, no design showing less likeness to the possibilities of the actual remains than his; while in the latest, that of Cipolla (1889), the central and most ancient of all the buildings is not shown.

Mr. Chalton Bradshaw said he made no study of the lower part of the city (i.e., the Roman forum and its surroundings below the present town), and limited his restoration to the part above the Via degli Arcioni. A certain amount is visible south of this road, but until further excavations have been made any attempt at a reconstruction of this part would be useless.

The date chosen for the restoration is the end of the first century A.D. The site of the ancient town was at this time partly covered by the sanctuary as rebuilt by Sulla, who founded a new Roman colony at the foot of the hill. Here was the forum with new public buildings, which later included libraries, and amphitheatre, and even a school for gladiators. Houses and public buildings must, however, have existed in the more ancient part of the town, and there is no warrant for supposing that this part contained the temple buildings only.

Before the time of Sulla there was obviously no attempt at symmetry in the planning of the town. The lower terrace walls and south boundary are not parallel. The axis of the central building under the present Cathedral was not parallel with that of the group of buildings forming the ancient shrine. In the reconstruction which followed Sulla, an axis was taken passing through the centre of the space between the two grottos, and terraces were made at right angles to this line. The design of the upper part of the town is completely balanced, and repeats and confirms the lines of the early sanctuary. Two small hemicycles were made on the upper terrace to correspond with the two grottos. On the lower terrace, in Imperial times, a large water-tank was built which practically corresponded with one already existing on the east. In this way the town began to assume a symmetrical appearance, but there was far from being a perfect balance between the two sides.

Mr. Chalton Bradshaw then proceeded to discuss the buildings in detail. The restoration of the upper part of the town was a comparatively easy matter. The whole formed an architectural setting for the more ancient shrine below. A large open space surrounded by a colonnade with a hemicycle, the steps of which still exist in the middle of the north side, commanding a magnificent view of the plain to the south, is crowned by a round temple. This space probably served, as Professor Marucchi suggests, as an open place for functions and sacrifices, which were not possible in the ancient forum

owing to its restricted size and to the presence of other monuments.

In suggesting other suitable buildings Mr. Bradshaw referred to similar towns such as Anxur (Terracina), Tibur, Tusculum and Pompeii. The basilica shown on the east of the forum is like that which exists at Anxur, and the temple, with its enclosure on the west of the central axis, is similar to that of Apollo at Pompeii. In the remaining space he has suggested quarters for the priests and attendants of the sanctuary, and has also shown shops and houses, small baths and villas. These are all natural to a famous shrine and health resort such as we know Praeneste to have been; but it must not be forgotten that after Sulla and in Imperial times the centre of civic life lay not here but in the new town on the plain, where, in consequence, were many buildings which might otherwise have been looked for here.

The type of house has been assumed to be rather that of Ostia than of Pompeii. The Pompeian type would not have been so adaptable because of the restrictions of space imposed by the terraces. The Ostian house, unlike the Pompeian "domus" with its atrium and horizontal development, depends for light on a façade with windows, and develops vertically after the fashion of a modern house. Thus it is much more fitted for places where for any reason the land available for building is limited, as must have been the case on the hill at Praeneste.

Very little is known of the planning of villas in the neighbourhood of Rome; but for the general appearance of their exterior Mr. Bradshaw was guided by wall paintings, in Rome and at Pompeii.

#### DISCUSSION.

Professor J. S. Reid, M.A., LL.M., Litt.D., said that those responsible for the British School at Rome had for many years hoped that students representative of all the arts would be absorbed into the School. He had been very glad, therefore, to listen to one of the first fruits of such combined research. The expansion to which they had looked forward in the School's early days was still proceeding—a Faculty of Engraving had been added within the last few months, and an alliance made with the Modern Languages Association. The wider the interests of their students the better for them—no matter to what Faculty they belong. Incidentally it would be a great benefit if the study of Italian in this country could be promoted and brought back to the position it occupied up to the end of the eighteenth century. He must congratulate Mr. Bradshaw on the result of his researches, and express a hope that they form a good augury for his own career and for that of the future work of the School. Many of the greatest archaeologists had been trained architects. He himself looked forward confidently to the future; there was still a very great deal of development possible for the School if it could obtain wider resources. At present it stood at a disadvantage compared with other schools, and needed an amiable millionaire.

Professor Ernest A. Gardner thought the paper an extremely happy example of the co-operation of architect and archaeologist. The restraint imposed on the imagination of the architect by the archaeologist was valuable, because it kept him to facts.

Mr. John Slater described Praeneste as a most picturesque place commanding a never-to-be-forgotten view from its summit. Anyone who had seen how the remains of these old buildings are overlaid can only be struck with the patience and skill with which Mr. Bradshaw had exposed one of the most striking cities in the neighbourhood of Rome. The British School at Rome were to be congratulated on the results.

Sir Charles Walston described the paper as a very sound piece of work in which an organic whole had been reconstructed from fragments.

Professor Buckley and Mr. H. H. Statham having also briefly spoken, the vote of thanks was formally put to the meeting by the President and carried with acclamation.



**R.I.B.A. Prizes and Studentships.****Royal Institute Silver Medals.**(1) *Essay Medal.*

Not awarded.

(2) *The Measured Drawings Medal.*

The Silver Medal and £50 has been awarded to Mr. J. H. Odom, A.R.I.B.A., of Sheffield, for the set of drawings submitted under the motto "Ajax." A certificate of Hon. Mention has been awarded to Mr. Cecil Leckenby ("Sapper"), of York.

**The Travelling Studentships.**(3) *Owen Jones Studentship.*

No applications.

(4) *The Tite Prize.*

The certificate and £100 has been awarded to Mr. Gordon H. Holt, Hampstead Way, London, the author of the design submitted under the motto "Zut. . . c'est pas du futurism!!" A certificate of Hon. Mention has been awarded to Mr. Archie Gilchrist Paton ("Giagan"), of Glasgow.

(5) *Henry Saxon Snell Prize.*

No designs received.

(6) *Godwin Bursary.*

The prize of £130 has been awarded to Mr. Charles B. Pearson, F.R.I.B.A., of Lancaster.

(7) *Grissell Gold Medal.*

Not awarded.

(8) *Arthur Cates Prize.*

Not awarded.

The work submitted by Mr. H. Austen Hall, the Godwin student, and Mr. H. J. Harrison, the Pugin student, has been approved.

**Birmingham Architectural Association.**

At the sixth general meeting of the session, which was held at the Association's rooms, Royal Society of Artists' Buildings, New Street, Birmingham, on Friday, January 14, Dr. Douglas Stanley, of Birmingham, gave a paper entitled "Continental Buildings."

Dr. Stanley said that Continental Buildings was a very wide term, and he proposed to deal with only one section of them.

His paper dealt generally with the Romanesque buildings of Southern France, more particularly with the monasteries and abbeys of that period.

The Abbey of Moissac was the first to be described, this, like many of the great abbeys that flourished between the eleventh and fifteenth centuries, was built on the site of an earlier foundation, probably Merovingian. The first Romanesque abbey was built by Abbot Durand, and consecrated in 1063 A.D. It was almost totally destroyed by fire. Towards the end of the twelfth century, however, the abbey was rebuilt, and the portions not destroyed by the fire were utilised in the new structure. The magnificent west door, which had survived, was moved to the south side.

The Cloister, which is the finest in France, was probably first built in the middle of the twelfth century, and the carving of the capitals of the columns is particularly rich. The effect produced by the long vista of columns and by the network of lights and shadows can be imagined, but must be seen to be appreciated.

The Cloister of St. Lizier, which is much smaller than Moissac, was next described. This Cloister dates entirely from the eleventh century, its columns and capitals being very beautiful in shape and design.

St. Bertrand de Comminges, in the Pyrenees, was another of the early monasteries resembling St. Lizier somewhat in size and characteristics, and is also remark-

able for its wealth of beautiful eleventh-century work. The church is a particularly interesting specimen. The nave is 225 feet long, and the walls are so thick that the eleven side chapels which are built within them cause no excrescence on the outside face.

In listening to Dr. Stanley's paper one was taken rather farther afield than one is taken by a perusal of the average text-book on the same subject. The architectural information collected during visits to many remote districts of Southern France provides new matter for thought, and reflects great credit upon Dr. Stanley who, although a layman, displays a keen appreciation of good architecture.

The lecture was profusely illustrated by lantern slides, some of which depicted unique examples of the Romanesque period in France.

**Forthcoming Events.**

*Friday, January 21.*—Fine Art Trade Guild. Meeting at Messrs. Thomas Agnew's Galleries, 43 Old Bond Street, W. Lecture by Mr. Albany E. Howarth, A.R.E., entitled "The Arts of Etching and Dry-point." 7 P.M.

*Monday, January 24.*—Architectural Association. Meeting at 34 and 35 Bedford Square, W.C. Paper by Mr. Percy A. Wells, entitled "Modern Furniture Design and Decoration." 7.30 P.M.

*Tuesday, January 25.*—Liverpool Architectural Society. Meeting at 13 Harrington Street. 6 P.M.

—Institution of Civil Engineers. Meeting at Great George Street, Westminster. Discussion on the paper "Reinforced Concrete for Ship-Construction," by Prof. T. Bertrand Abell. 5.30 P.M.

*Wednesday, January 26.*—National Federation of Building Trades Employers of Great Britain and Ireland.—Annual General Meeting at the Connaught Rooms, Great Queen Street, W.C. 2. 10.30 A.M.

*Thursday, January 27.*—Concrete Institute. Meeting at Denison House, 296 Vauxhall Bridge Road, Westminster, S.W. Paper by Mr. J. Allen Howe, B.Sc., F.G.S., entitled "Geology in relation to Building Stones." 7.30 P.M.

—Edinburgh Architectural Association. Meeting.  
*Saturday, January 29.*—Society of Architects. Visit to Painter Stainers' Hall, 9 Little Trinity Street, E.C. 3 P.M.

**Competition News.**

THE Chester War Memorial Committee have considered twenty-two designs which were submitted for the city war memorial to be placed on the Cathedral Green in St. Werburgh's Street. The first prize was awarded for a cross designed by Messrs. Rayson and Crossley, architects, Oxford. Mr. Crossley lives at Shavington Avenue, Hoole, Chester. The second prize was given for a design by Mr. W. Beswick, architect, Chester. A rough estimate of the cost of the selected design is £2,000.

**Inquiry into the High Cost of Building.**

DR. ADDISON has appointed a Committee to inquire and report as to the reasons for the present high cost of building working-class dwellings and to make recommendations as to any practicable measures for reducing the cost. The committee will be constituted as follows: Mr. J. Stanley Holmes, M.P. (Chairman); Sir Thomas Robinson, M.P., Col. J. Ward, C.B., C.M.G., M.P., Sir James Carmichael, K.B.E., Mr. Thomas Barron, Mr. A. G. Cross, F.S.I., Mr. F. G. Gayer, F.I.O.B., Mr. James Gibson, F.R.I.B.A., Mr. A. W. Jenkinson, C.B.E., Mr. W. H. Nicholls, Mr. E. H. Selby, F.S.I., Mr. J. Walker Smith, M.I.C.E., Mr. S. Stranks. Mr. T. H. Sheepshanks, of the Ministry of Health, will act as secretary to the committee, and communications should be addressed to him at the Ministry of Health, Whitehall, S.W. 1.

THE Bootle Town Council have decided, in view of the falling cost of materials, not to proceed with the contract for erecting 212 houses at a cost of £205,440. It was agreed to give Messrs. Costain, the contractors, the option of building fifty houses. Alderman Jones said the demand for property was not now a tithe of what it was six months ago.



## Correspondence.

### Lord Kitchener Memorial.

To the Editor of THE ARCHITECT.

SIR,—May we be permitted to reply to the letter published in your journal from the architects of the Earl Kitchener Memorial, in respect to our statement *re* Public Memorials. Our remarks were not confined to that particular Memorial only, but as a general protest against this class of work being executed abroad, and in many cases without the knowledge of the architects or the clients.

If we have, in the particular instance quoted, been unjust to the architects or the clients, we wish to sincerely apologise for any inconvenience caused, and state, in extenuation, that information was given us from what we considered an authentic source, that negotiations were taking place for this work to be executed in Italy; to prevent this we were obliged to act immediately before the contract was actually placed.

The architects mentioned, who have always in the past been very considerate of British craftsmen, are, we have no doubt, aware of the frequent practice of some to send this work abroad, to the detriment both of British craftsmen and British art, as from the craftsmen of the present, we look to find the future leaders of the craft. Thanking you for your consideration of our cause, I am, Sir, yours, &c.,

Signed on behalf of Committee,

A. BUCKERIDGE, President.

Sculptors' and Carvers' Society, N.A.F.T.A., Tavistock Street, London, W.C.,

January 12, 1921.

### The Building Trades' Incubus.

To the Editor of THE ARCHITECT.

SIR,—The latest published information with regard to the housing problem will afford considerable scope for thought with those who are now deeply interested in the building industry as a whole. The Registrar-General's Annual Report for 1919 suggests very plainly that a net addition only of 140,000 houses is required (apart from replacement of defective houses) to coincide with the estimated population, based on the figures of the last census. Information from the current Weekly Housing Report shows that contracts have been signed for, in all, 140,180 houses. It has been obvious to all thinking people, whether connected with our great industry or not, that the great cry for houses was, to say the least, an empty one, and if one adds to that, a consideration of the economic position, one is led to the conclusion that obviously it is time to call a halt in this direction. To those of us who "are in the know" with regard to the subject, it has been quite clear that the horde of officials have miserably failed after stepping in, with the exaggerated idea that they could solve the problem for the industry better than those in the industry could in spite of their life-long experience. The position therefore is that in the interests of progress and economy the whole of the official encumbrance of the building trade should be cut clean out. At a time when there is so much unemployment it is quite clear that if housing schemes are to be considerably curtailed for more reasons than one, that the embargo on commercial and even luxury building, should be immediately removed. That the various "limpets of office" will endeavour to hold on is fairly obvious, but architects and building contractors should in the interests, not only of themselves, but of the general community, strain every fibre to obtain that freedom for enterprise which is so necessary to progress. We are rapidly reaching greater stability in our trade than we have experienced for some years past, and, given the necessary freedom, there should be, having reference to the needs of the public, sufficient work for the legitimate trade for many years to come.—Yours, &c.,

For E. A. ROOME & Co., LTD.,

(F. J. Gayer, Managing Director),  
Building Contractors.

Crown Works, Urswick Road, Hackney,  
January 14, 1921.

### "Paint Now."

To the Editor of THE ARCHITECT.

SIR,—You may be interested in the enclosed particulars of an advertising scheme for reducing local unemployment in the painting and decorating and building trade now being worked in the South of England. The employers' association of the building and allied trades of Bournemouth, Christchurch, Poole, and district, at whose request we prepared the scheme, have raised a fund of about £200, which is now being expended in local newspaper advertising of the

"Paint Now" appeal and in distribution of 20,000 "Paint Now" leaflets as sample herewith, and also "Paint Now" bills over the Mayor's signature throughout the district.

Six-inch double-column spaces are being run in all the local papers right through the winter season—we will endeavour to attach a specimen advertisement to this letter. The 20,000 "Paint Now" leaflets are distributed direct by individual members of the Association, each leaflet being imprinted with the name of the distributor. The leaflets go out in an envelope covered by a personal typewritten letter of which we attach copy. The "Paint Now" bill over the Mayor's signature are as pull attached. If you would care to refer to this scheme we shall be pleased to provide a half-tone reproduction of the leaflet and a line block of the poster for illustration. Although but recently started, the advertising has already resulted in increased trade, so the Bournemouth Association informs us, and they have agreed to our suggestion to advise other affiliated associations throughout the kingdom to adopt similar measures.—Yours, &c.,

LEWIS BERGER & SONS, LTD.,

(P. C. V. Grigsley, Advertising Manager).

Homerton, London, E. 9,

January 14, 1921.

[We do not give the publicity matter alluded to.—Ed.]

### The A.S.A.P.U. and the Insurance Workers' Strike.

To the Editor of THE ARCHITECT.

SIR,—The Executive of the Architects' and Surveyors' Assistants' Professional Union is giving its unanimous support to its colleagues of the Guild of Insurance Officials in their dispute with the General Accident, Fire and Life Assurance Corporation, Ltd., and wishes the fact to be as widely known as possible. Several of the Corporation's employees were dismissed simply and solely for the reason that they had joined the Guild, as flagrant a case of victimisation as there has ever been, these employees being dismissed, it must be borne in mind, not for refusing to work with non-Guild employees (the Guild, as also the A.S.A.P.U., holding that membership of a trade union should be voluntary), but because as free subjects of a free people they voluntarily joined and refused to abandon their right to join. There is no other question in dispute.

The Guild accordingly felt no other course open than to call out all its members employed by the Corporation, and the Executive of the A.S.A.P.U., in conjunction with the executives of all similar professional organisations, feels no other course open to it than to ask all its members (compliance to be purely voluntary), and all others who may read this notice who may feel so inclined, to take all such lawful action as may occur to them in support of the dismissed and striking insurance officials while the dispute lasts. The fight is one for personal liberty, and of vital consequence to all non-manual workers, and must be maintained. The Corporation has shown so far adamant resistance to all efforts at conciliation, even to the extent of refusing the mediation of an official of the Ministry of Labour sent to the head offices at Perth for that special purpose.—Yours, &c.,

CHAS. McLACHLAN,

Hon. General Secretary.

33 Tothill Street, S.W. 1.

January 17, 1921.

The Council of the Surveyors' Institution have received an invitation to nominate four members to act with the representatives of the employers and operatives on the Industrial Council for the Building Industry (the Building Trades Parliament), and have decided that building surveyors could take a useful part in dealing with the matters coming before that body. The members to be nominated for that purpose will be selected at the next meeting on February 7.

The University of Manchester extra mural department, in conjunction with the Institute of Builders and the Manchester Society of Architects, have arranged three lectures at the University, at 8 P.M., on "The Art of Building." The first lecture was delivered on the 17th inst. and was entitled "Is Architecture Worth While?" by Mr. Paul Waterhouse, M.A., F.R.I.B.A.; chairman, Mr. Henry Matthews, J.P. The remaining lectures are on January 27: "Imperial Building and What We Can Learn from Rome," by Lt.-Col. W. G. Newton, M.A., A.R.I.B.A., and February 17: "Westminster Abbey and its Builders," Professor W. R. Lethaby, F.R.I.B.A., architect to the Dean and Chapter of Westminster. Admission is free.



# Memorials in Llandaff Cathedral by F. Joubert.



MEMORIAL WINDOW TO GEORGE FREDERICK INSOLE IN LLANDAFF CATHEDRAL.  
Designed by FELIX JOUBERT.

We give here a reproduction of a fine example of the stained-glass worker's craft in the window recently unveiled in Llandaff Cathedral: this large stained-glass window—by Mr. Félix Joubert, of Chelsea, who in both his design and colour scheme here has been under the influence of the art of the "cinquecento"—has been erected to the late George Frederick Insole by his widow.

The central subject here represents the Saviour in the moment of His passion, standing with bound hands and an expression of resigned sadness, while the cloak, of rich

ruby diapered with the pomegranate, is falling from his bared shoulders. Before him is a parapet with carved columns; and on his either side are the kneeling figures, to right and left, of St. George of England in mediæval armour, and St. David of Wales in the robes of an Archbishop wearing the mitre and holding his pastoral staff: behind these figures are grouped adoring angels, and the landscape background, with stone-pines and cyprus trees outlined against the sky, shows again the attraction of the Italian primitives, noticeably of the fresco paintings of Benozzo Gozzoli.



## New Books.

"Old Village Life." By P. H. Ditchfield, M.A., F.S.A., Hon. A.R.I.B.A. (Methuen & Co., Ltd.) 7s. 6d net.

THE fact that the Rev. Mr. Ditchfield has written seventeen books, almost every one of which deals with some phase of life in bygone England, is testimony of the thoroughness with which he has explored his chosen field of study. There is, however, a danger that each book may suffer to a certain degree from this division into separate compartments or volumes of what is really one subject. For instance, his latest is entitled "Old Village Life"—but surely that should comprise chapters on the parish clerk, the old-time parson, the manor houses, old English customs, and the country squire. Yet each of these attractive headings having already been dealt with by the author in a separate book, has to be passed over more or less hurriedly in the book under notice. No doubt the answer to our point is that Mr. Ditchfield finds so much of interest to say about each that to include them all in one volume could only be done by ruthless sacrifice of good material. We were inspired to raise it by our failure to find in the present book any satisfying survey of the men who in succeeding centuries guided from the church the spiritual life of the countryside. Glimpses there are, it is true, of the clergy; but they are scattered and incomplete. Mr. Ditchfield must feel this himself, for he says in an early page, "It were vain to attempt to describe the vast change which the Church effected in village life in this volume."

The reader is taken briskly through successive epochs. In the first four chapters Mr. Ditchfield deals in a popular manner with the outstanding conjectures left us by prehistoric times when the existence of a spring, stream, or pond was the dominating factor in the choice of site. Then the Romans landed and "took over" the existing settlements. British agriculture had become so well established by the end of the fourth century that when Rome's supply of corn from the Rhenish provinces was cut off the Emperor Julian chartered 600 vessels to convey our harvest to Italy. It is not probable that any abrupt alteration was made in national life after the departure of the Romans. But the Jutes, Frisians, Angles, and Anglo-Saxons, who next gained a grip over all the land, were hostile to Roman civilisation and took pains to uproot it. When the Anglo-Saxons colonised England they continued to keep together in tribes or families and nearly always named or renamed their settlement after the head of the family. Only impersonal features like hills and rivers were allowed to retain their British name. The price of an unfortunate native is stated by Mr. Ditchfield to have been one pound, which, we are astonished to read, is now "equivalent to £2 16s. 3d. of our currency." With the Normans came the term "manor"; but it was only the unchanged Anglo-Saxon village under a new name. The same system of life and agriculture was carried on, though once more the helpless peasant came under the heel of the conqueror.

Mr. Ditchfield, as a country clergyman, is concerned with the present no less than with the past life of the English village. Coming to modern times, he comments with much shrewdness on the latest developments. After long neglect and unpopularity English agriculture and the agriculturist leaped suddenly into the limelight during the Great War. But our author is obviously doubtful about the future. He has no infallible nostrum, and, being no longer quite young, he is too wary to indulge in prophecy. The future of agriculture is, after all, mainly a question of politics. But a somewhat different set of conditions seems to affect the future of English village life. Mr. Ditchfield wholeheartedly approves of brightening the dull routine of our villages. While he advocates better houses he wisely pleads for the conservation of the old wherever they will lend themselves to adaptation.

The book is a well of information, pleasantly opened up by one who is saturated in his subject.



MEMORIAL FIGURE WITH TABLET  
TO CAPTAIN G. C. INSOLE, M.C.  
Designed by FELIX JOUBERT.

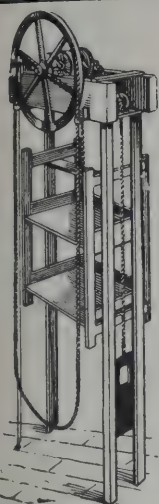
Félix Joubert is one of those versatile artists who recall the Italian masters of the best time, many of whom were equally at home in painting, sculpture or architecture; or in our own time Cesare Laurenti of Venice, or among our own race that great craftsman Alfred Stevens. Another example of Mr. Joubert's craftsmanship, outside stained glass, is given by us here in his monument in bronze and marble, also in Llandaff Cathedral, erected to the memory of the late Captain G. C. Insole, M.C., of the Welsh Guards. This memorial takes the form of a winged angel, in marble, standing upon a bronze tablet, inscribed with the words "He shall give his angels charge concerning thee," and the date of Captain Insole's death—who was killed in action at Arras on the 12th of April, 1918. Primarily it was intended to hang this officer's sword upon a tablet in the Cathedral: but finally Mr. Joubert's design was accepted, taking the form of an angel grasping the sword, as if in the charge of a servant of the house of God—a dignified and worthy conception of treatment.

A point to be noted about this figure of the guarding angel is that it has been modelled, or rather carved, in white marble in "medallic" or bas-relief, only the hands being here emergent "en plein" to receive and keep the original sword of this gallant officer.

Mr. Joubert has been successful elsewhere with stained-glass work, having designed a window for the Widner Institute in Philadelphia. Incidentally it may be also mentioned here that since the death of the late Sir Guy Laking Félix Joubert is probably the best living expert on ancient armour, of which his Chelsea studio contains a remarkable collection.

S. B.





:: HAND-POWER ::

## LIFTS

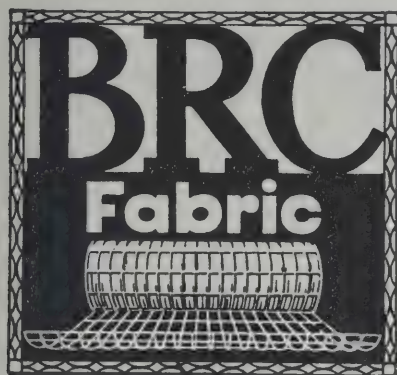
AND

Revolving Shutters

**JOHN BRYDEN & SONS**

(ESTABLISHED 1809)

LONDON - 15 Glendower Place,  
South Kensington  
EDINBURGH 16 Frederick Street  
GLASGOW 63 West Regent St.  
DUNDEE - 32 Bell Street



# VENUS

17 degrees  
Blacklead  
6B (*Softest*)  
to  
9H (*Hardest*)

For  
Architects  
& Builders

*Of all Stationers &  
Drawing Office Suppliers*

6d. each, 5/8 per dozen.

## PENCILS

"VENUS" Lower Clapton Road E. 5.



## THE HELIUM FITTING

THE LATEST LIGHTING PROPOSITION.

UNDOUBTEDLY THE LAST WORD IN  
EFFICIENT AND ARTISTIC LIGHTING.

FOR USE WITH HALF-WATT LAMPS.

A REVOLUTION in SCIENTIFIC LIGHTING.

WE INVITE ARCHITECTS TO WRITE FOR OUR  
ILLUSTRATED BOOKLET AND DETAILS OF OUR OFFER.

EXCEPTIONALLY FINE DECORATIVE EFFECT.

## ALBERT LEE & COMPANY, Ltd.,

8/9 New Zealand Ave., London, E.C. 1  
and 5 Cross Street, Newcastle-on-Tyne.

Telephones: { CITY 8668.  
CENTRAL 4524

Telegrams: SHADOWLESS { LONDON.  
NEWCASTLE.



## An American Lawyer's Views of an Architect's Difficulties.

UNDER the title of "Architectural Quicksands," Mr. Clinton H. Blake, Jr., of the New York and Federal Bars, has contributed to the "American Architect" a series of interesting leading articles. Below we give an extract from one of them.

One of my clients has adopted a rather ingenious compromise, which, while not as effective as the making of a proper contract with the client, is nevertheless interesting. He has printed a small and rather informal-appearing schedule of his charges in general terms based largely upon the schedule of charges of the American Institute and of the New York Chapter, and headed, "Practice and Charges of (name of the architect)." When a client calls and asks him to undertake a new piece of work he hands him, in the course of the discussion, one of these schedules. He does not ask the client to sign any agreement or sign or initial the schedule, and does not lay any particular stress on the schedule. He says simply enough to indicate that this is the basis on which his work is done.

This procedure is frankly a compromise between the alternative, on the one hand, of not mentioning the matter of charges and the other terms upon which the work is undertaken and trusting to secure payment of the reasonable value of the work done in due course, and the alternative, on the other hand, of asking the client to sign a formal agreement specifying the exact terms upon which the work is undertaken, and the rights and liabilities of the architect and the client in connection therewith. The best that can be said of it is that it is a vast improvement on the custom of most architects of saying nothing, and that in the case of a dispute it enables the architect to urge, with a fair chance of success, that the client was put "on notice" as to the terms upon which the work was to be carried out.

In a number of cases which have arisen, I have brought suit for this particular architect successfully on the theory that there was a definite contract between the client and himself to the effect that the work would be done and paid for under the conditions and at the rates specified in the schedule which he handed to the client. This is on the theory that the client, in going ahead with the work, after having been given a copy of the schedule and told that it represented the charges and terms of the architect, must be deemed legally to have agreed that the work should be done and paid for accordingly. This is treading upon very treacherous ground, however, and I am never very happy in these particular cases until the court or the jury has finally determined that a contract really did exist and that the terms of the contract are the terms which are stated in the memorandum. Testimony by the client or in his behalf that the memorandum was brought to his attention in a casual way only, or that it was not made clear to him that it was to control the particular job in which he was interested, or that verbal modifications of the terms stated in it were agreed upon, might well upset the whole contract theory and rob the schedule of much, if not all, of its effect.

In such event the architect would not be able to sue upon the theory of an express contract, but would have to depend for his recovery and for the enforcement of his rights upon the theory of what the lawyer calls a "quantum meruit." Translated into everyday English this means upon an implied agreement by the client to pay the reasonable value of the work done. When this is the case entirely new elements are introduced into the situation. The architect cannot go into court and show that the client promised to pay him a definite sum and recover that sum accordingly. He must, on the contrary, bring in expert testimony—in addition to his own—to prove to the satisfaction of the court and jury the reasonable value of the services performed by the architect. The client can then introduce, on his part, testimony to show that the work was not of the value claimed, and that the experts who have testified for the

architect have placed upon it too high a valuation. Thus, an entirely unnecessary issue is at once presented for the consideration of the jury, and the old condition of opposing experts testifying, some for the plaintiff and some for the defendant, is again presented. The result will probably be a compromise verdict at the best.

It needs no elaborate argument to show that a litigant who can present a definite contract signed by the man who he sues is in a much stronger and more advantageous position than the claimant who comes into court without any such basis for his suit. Where a contract is made the defendant cannot avoid the issue by contending that the terms embodied in the agreement were not the terms upon which the work was done, because the court will not allow the terms of a written agreement to be varied or changed by an alleged verbal understanding inconsistent with them. Again, the client will not be allowed to attempt to show that the consideration to be paid the architect, as stated in the contract, is more than the work is worth, because, having agreed in writing to the specific amount, the court will hold that he is bound by the agreement which he has deliberately made. Proof of the written agreement and of the proper performance of the work contemplated by it will be enough. No expert testimony will be required as to the value of the work, and the jury, having the definite writing before it, will usually find a verdict for the full amount agreed upon.

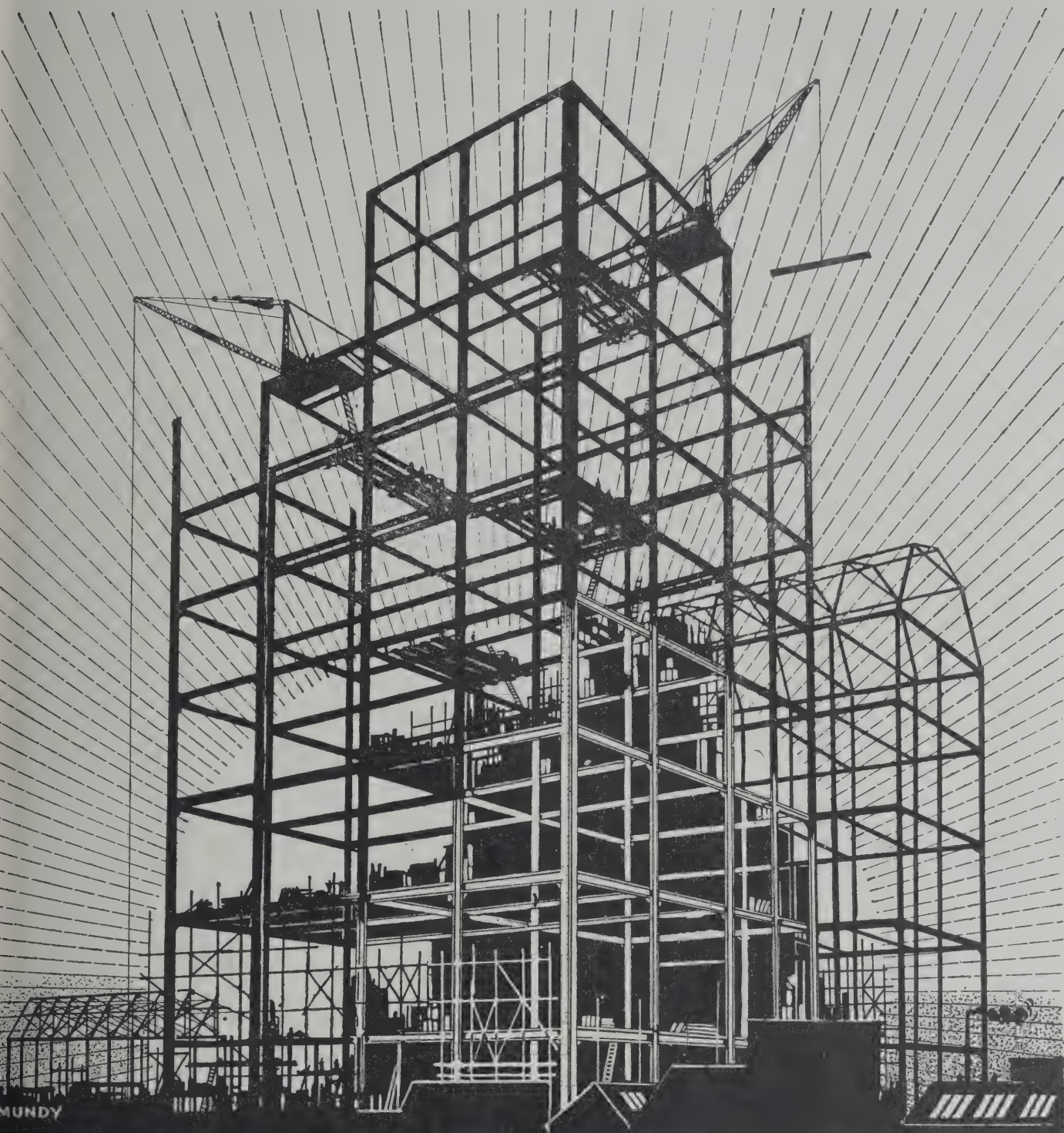
The sum to be paid to the architect for his services is only one of the items which should be clearly understood and agreed upon. In many ways, it is of less importance than other points, such as the right of the architect to make necessary modifications, to authorize extras, the fact that the architect does not guarantee that the work can be done for any specified amount, the ownership of the plans and similar provisions.

If the amount due for services be the only issue, the architect may at the worst lose a portion of the gain which he anticipated would accrue to him from a particular job, and find that he has given his time for nothing or for less than he should receive for it. If, on the other hand, the client comes in with a claim against the architect based, for instance, on the allegation that the architect has represented and guaranteed that the work can be done for a definite amount, whereas in fact the cost of the work has been vastly more than the limit set by the architect, the latter is not only faced with the danger of losing his fee, but is quite likely to be called upon to pay the difference between the estimated cost and the actual cost. It is to prevent just such a claim as this, and to anticipate and make impossible misunderstandings and claims against the architect on many other points which I propose to note that the contract between the client and the architect is designed. The contract, if properly drawn, will take care of all of the danger spots in the ordinary relationship of client and architect.

For some years I have made notes of the danger points in the relations of client and architect from the point of view of the architect especially, and in getting out drafts of agreements governing the relationships of the two I have had in mind these very points. In asking me to write these articles, the editors of the "American Architect" believed that it would be of interest if I were among other things to point out the more important of these dangers and show how they can be guarded against and how a comparatively simple contract between architect and owner will remove the dangers and prevent unnecessary litigation and loss to the architect.

The matter of an alleged or impleaded guarantee by the architect, to which I have already referred, is very seldom considered by architects in their dealings with their clients; and yet among the earliest legal decisions are cases holding the architect liable on the theory of a guarantee of price of his part. This naturally comes about because one of the primary considerations with the ordinary client is that of expense and the cost of the work. This being so, at the first interview or interviews with the architect it is inevitable that such a client will





# REDPATH BROWN & CO. LTD.

## CONSTRUCTIONAL ENGINEERS

### WORKS AND STOCKYARDS

LONDON  
Riverside Works,  
East Greenwich S.E.

MANCHESTER  
Trafford Park.

BIRMINGHAM  
Office: 47, Temple Row.

EDINBURGH  
St. Andrew Steel Works.

NEWCASTLE-ON-TYNE  
Milburn House.

GLASGOW  
Pinkston.  
Office 19, Waterloo St.

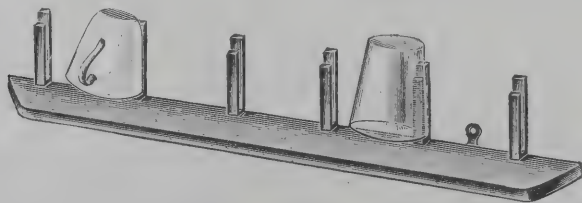
London City Office:- 3, LAURENCE POUNTNEY HILL E.C.4



ask the architect to tell him for how much the work can be done. This is the danger point. If the architect replies that he believes it can be done for a certain amount, but that he can manifestly only guess and give to the client his best judgment, and if he makes it clear that he does not in any way guarantee that it can be done for the amount which he names the danger point is successfully passed and there will be no "come-back" against the architect. If, on the other hand, the architect, either in his natural desire to secure a lucrative or interesting piece of work, or thoughtlessly and with the best of intentions and desire to help the client and being convinced in his own mind of the accuracy of his judgment, states that the work can be done for a definite amount it is quite possible that he will so phrase his statement that the court will construe it to be a guarantee on his part that the work will be done for this amount, or, at the least, a representation by him made to induce the client to proceed with the work and binding upon him in the event that the client does so in reliance upon it. The written contract contains a clause providing specifically that any statements made by the architect regarding cost are not to be construed in any way as representations or as guarantees, but that, on the contrary, they are merely statements made by the architect and expressive of his belief; that they are made solely for the information of the client and that the architect is not to be held liable in any way on the theory of guarantee or otherwise in the event that the cost exceeds the amount estimated by him. This is a perfectly fair provision, and is so worded in the contract that no fair-minded client can well take exception to it. It effectually prevents, however, any danger of loss to the architect on this point, and at the same time is helpful to the client in that the architect being thus protected is willing to express himself with much more freedom than he would if he had in mind the necessity of making guarded estimates in the absence of such a contract provision. The client in consequence receives the benefit of estimates which the architect might ordinarily be unwilling to make.

### The "Rycott" Draining Rack.

GENIUS may or may not be the infinite capacity for taking pains; at any rate its measure in the domestic world is its capacity for saving labour. We here illustrate a small device which should lighten the labour of washing up glass tumblers and cups. By time-honoured custom these are elaborately wiped with a cloth after being rinsed in hot or cold water—a method which costs a not inconsiderable amount of time and trouble if the glasses are to reflect credit.



The "Rycott" Rack avoids all that, for the glasses are placed direct from the basin on to the slit pegs of the rack over the sink and there allowed to drain themselves in just the same way as now happens to plates and saucers. Should a superfine polish be desired it is obtainable by a mere rub with a cloth when the glasses are dry. The new method should save breakage as well as time and work because it avoids the customary twisting and turning of a slippery glass. The rack can be obtained retail for 2s. from most of the leading stores throughout the country, wholesale from a number of factors or from the manufacturers and inventors—Rycott & Dixon, 115 Balham Hill, S.W. 12.

THE approved design of the Bedfordshire and Hertfordshire Regimental war memorial, to be erected at Bedford, which is the work of Mr. George P. Allen, F.R.I.B.A., takes the form of a circular shrine, which will contain the roll of honour, encircled by a paved and walled enclosure with stone seats.

### Housing News.

THE Alnwick Rural District Council have resolved to proceed at once with the construction of twelve houses at Alnmouth and four at Warkworth. Fifty houses are to be erected at Hauxley, twenty-four at Togston, six at Craster, and twelve at Embleton.

AT Stanley Urban District Council meeting, last week, the Housing and Town Planning Committee recommended the acceptance of the tender of Mr. J. H. Wood, Stanley, to erect twelve houses at Stanley Edge, at a cost of £9,888. The clerk reported that the Ministry of Health had sanctioned the borrowing by the Council of £150,000 for the erection of houses at South Stanley.

MR. FRANK ROBERTS, borough surveyor, Worthing, has acted as architect in respect of the borough housing scheme, but resigned the appointment on account of ill-health. The Housing Commissioner suggested the appointment of a whole-time surveyor in preference to retaining the services of an architect, and the Committee have appointed Mr. Samuel Charles Phillips, P.A.S.I., as temporary housing surveyor, at a salary of £500 a year. He will have charge of the Corporation's housing scheme, including the preparation of all plans.

THE Housing Committee of the Manchester City Council is recommending the Council to buy the Wythenshawe estate at Northenden, in Cheshire, for something like £375,000, while yet the land has only an agricultural value. The estate is of 4,500 acres, is entirely undeveloped, and is eminently suitable for housing on the best town-planning lines. Manchester has an area of 21,688 acres, so that Wythenshawe would add more than a fifth to its size. The scheme has been reported upon favourably by Professor Abercrombie, of Liverpool University, and by various Corporation departments. According to these reports the estate, in fact, is capable of speedy and cheap development.

AT the last meeting of the Yeovil Town Council there was a breezy discussion on the recommendation to pay Messrs. Petter & Warren, the architects, £735 for preparing plans, &c., and £972 for the preparation of quantities and other work in the erection of ninety-nine houses on the Knipton estate by direct labour. The opposition urged that the £735 had been agreed upon as a final and inclusive charge but the Mayor retorted that this misunderstanding arose from the preposterous notion that the work could be carried out under direct labour for the same architect's fees as would cover the work if let by contract. All the figures had been before the Council before, and had not been objected to. The Housing Committee's recommendations were agreed to.

ISLINGTON Borough Council, which has a Labour majority, after an uproarious meeting, has decided to build a new town hall, municipal offices, two large halls, and a block of residential flats at a cost of £553,000. The Council will now apply to the L.C.C. for sanction to borrow £550,000 for the building. The offices are to be erected on a site in Tyndale Place. Last November a Town Hall Committee presented a long report, setting out the inadequate and insanitary accommodation of the present buildings, and strongly recommending the Council to proceed without delay with a scheme and plans for the erection of a new town hall. The Committee recommended the appointment of Mr. E. C. P. Monson, F.R.I.B.A., F.S.I., as architect, at a fee of 5 per cent. on the cost of the work.

EDINBURGH Housing Committee, after considering reports from the Town Clerk and the Housing Director, decided on drastic modification of the housing schemes approved by the Town Council. The original scheme called for the building of 3,000 houses, modified later to 2,044, and of these 732 are at present in the hands of the builders, or tenders have been accepted. The Committee last week decided that with regard to the Saughtonhall scheme, which deals with the erection of 310 houses, to leave the matter to the next meeting of the Council. The Leith and Gilmerton schemes were meantime delayed. Mr. A. Horsburgh Campbell, Director of Housing, has prepared a memorandum in supplement to the report of the Town Clerk on the Edinburgh housing schemes. He proposes to carry on with 1,281 houses. Most of these are in the Edinburgh area, 96 in Leith, and 74 in the suburban district. He points out that the latest tender submitted for stone showed a decided downward tendency, and gave evidence that the way was opened to a good understanding with the building trades, and to a return to local stone as the basic material for the building of Edinburgh. Mr. Campbell suggests that a census should be taken in the city to discover the true housing shortage.



## CONTENTS.

Old Montagu House . . . . .	PAGE 63	"The Architect" Fifty Years Ago . . . . .	PAGE 69
Illustrations . . . . .	64, 65	Ravello.—II. (Illustrated) . . . . .	70
Notes and Comments . . . . .	64	Architects and the Public They Serve . . . . .	72
London Art Galleries . . . . .	66	Land for Wandsworth Housing . . . . .	73
Art News of To-day . . . . .	66	Architects' Benevolent Society's Appeal (First list) . . . . .	74
The Architectural Association . . . . .	67	Scottish Building Guilds Conference . . . . .	76
The R.I.B.A. Prize Drawings . . . . .	68	Competition News: Forthcoming Events . . . . .	76
The Society of Architects . . . . .	69	General . . . . .	76
The Royal Institute of British Architects . . . . .	69	New Catalogues: Housing News . . . . .	78

## Old Montagu House.

THE house which became the first home of the British Museum is familiar, by name at least, to all cultivated men and women, but it may be of interest to give from contemporary sources some account of it in greater detail than is available in any of the handbooks dealing with the subject.

Montagu House—Montagu is the form given by the modern works upon the subject—was a great mansion built for Ralph, first Duke of Montague, in 1686—"the Architecture was invented and conducted by Monsieur Pouget," says our authority, writing in 1778 (modern authorities spell him Puget), and consisted of a stately château of the style of Louis XIV., with a courtyard masked from Great Russell Street by a panelled brickwork screen, the entrance being under a classical porter's lodge surmounted by a quaint cupola. The front was 270 feet in length, and the back of the house looked out over a garden of  $7\frac{1}{2}$  acres to the pleasant fields lying between Bloomsbury and distant Highgate. At this porter's lodge the would-be visitor had to leave his name, address, and rank, and those of the party he proposed to bring with him, some days before he wished to go. The tickets had then to be fetched away, "at the latest by Ten in the Morning, the Day before the Time of Admission," and, these preliminaries being gone through, the party, "not more than Fifteen in Number," presented themselves for the third time, and were admitted. Crossing the great Courtyard, ascending the steps of the Terrace, and glancing to right and left at the wings in which the officers of the Museum lived, they reached the entrance, and were admitted into a vestibule, to the left of which the grand staircase led to the collections; almost all of which were on the first floor. "This Staircase, and some of the Cielings," says our guide of 1778, "are painted in Fresco, the Historical Figures by La Fosse; the Architecture and Landscapes by Rousseau; and the Flowers by John Baptist Monnoyer, commonly styled Baptist the Flower-Painter, Born at Lisle in Flanders, and brought up at Antwerp. His Grace the Duke of Montague, being Ambassador in France, invited him over to England, to adorn his Magnificent House in Great-Russel Street, Bloomsbury, where a great Variety of Flowers and Fruit of this Master are to be seen, and those the best of his Performances." Louis Cheron, also a Huguenot refugee, was employed by the Duke, "for whom he painted the Council of the Gods, and some other Compositions; taken from Poetic, or Fabulous History," so that the Museum was rich in works of this class, dear to an age which admired the extensive allegories of Thornhill, and the sprawling Saints of Verrio and Laguerre. There were thirteen rooms in all to be visited upon this floor, containing: Antiquities (two rooms), Minerals, Shells, Plants and Insects, Zoology, Curiosities—ranging from a Natural Portrait of Chaucer in a cut Aegyptian Pebble to a bodkin taken from a lady with a Stone

formed round it—Cottonian MSS., Harleian MSS. (two rooms), Harleian Charters, Sloane MSS., and Medals. Descending by the secondary staircase, which opened off a vestibule from the grand staircase, visitors were shown five rooms containing the Printed Books of Sir Hans Sloane, the Edwards Library, the Old Royal Library (three rooms), and the Philosophical Apparatus, but as only two hours were allowed for the whole they were hurried from room to room without much chance of real enjoyment. If, on the other hand, a visitor were interested in any particular object, he was at liberty to ask the officer in charge of the party—and most of the officers' time seems to have been taken up in showing such parties round—to show it to him. This rule, however, does not seem to have been always enforced, except in the Library, since we read, "especially in going through the Department of Printed Books he [the visitor] is strictly required not to take any of them down from their Shelves, but to apply to one of the Officers, who will reach him any Book he is desirous of seeing." This is a privilege not granted to the casual visitor nowadays, happily for the present staff!

It is probable, however, that the most popular section with the general public was that vaguely known at Curiosities; here petrifications and accretions, stones containing "natural" landscapes and portraits, gloves made of the beards of byssus-bearing shells, and a hair-ball from an ox's stomach delighted the sightseer whose soul was above the literary attractions of MSS. and printed books; shells, too, were extraordinarily popular in that age of grottos and artificial shellwork, and tickets of admission to ancient games were a powerful attraction, to judge from the way in which they were discussed and reproduced.

The more intelligent visitor saw much in the system that called for alteration. One writes in 1778 to urge his "humble Opinion, that every Curiosity should be exactly labell'd"; another, a few years earlier, that "the Public should be admitted more liberally, and more easily, by placing a warder in every room, to be continually present during the public hours," since "the very courtesy" of the officials "is wont to make a stranger content himself with hasty and unsatisfactory glances, that he may not trespass on their politeness." Yet the same visitor, a scholarly Frenchman, found the Museum "the largest, the most stately, the best arranged, and most richly decorated" collection in England; though another found the historical sight-seeing a disappointment, only enough to enable him "to cast one poor longing look of astonishment on all the vast treasures of nature, antiquity, and literature, in the examination of which one might profitably spend years."

The entrance to the Reading Room was (*teste Gray*) "through the jaws of a great leviathan," i.e., the skeleton of a whale. In this Reading Room



books and MSS. were, once the reader was admitted, to be seen for the asking, but few availed themselves of the privilege; only four were there on one occasion, when the poet was there, but they were fortunately peaceful enough at a time when, as Gray says, "the keepers have broke off all intercourse with one another, and only lower a silent defiance as they pass by," and the Principal Librarian had actually walled up a passage, "because some of the rest were obliged to pass by one of his windows."

But students and visitors alike had one delightful privilege long since denied to the inhabitants of Bloomsbury. Leave of admission was given "to any proper Persons for to Air or Walk into the Garden upon their Application"; and a pleasant thing it

must have been to take a turn in the fields after mind and body had been "confused, stunned, and overpowered," as a German visitor of 1780 expresses it, at the sight of the Museum and its "infinite riches in a little room." Infinite rubbish also, one must admit, and hemmed round with regulations and restrictions which last were evaded by certain dealers in tickets of admission, an illegal traffic carried on nevertheless until 1805; but even then a foundation unrivalled in Europe for the variety and splendour of its contents. And Montagu House, with its paintings and its terraces, its gardens, and its stately suites of rooms, was a fitting setting for what a contemporary justly called "That Noble and Magnificent Cabinet the British Museum."

## Illustrations.

ST. JOHN'S CHURCH, WERNETH, LANCs. J. GIBBONS AND SON, Architects. (See page 65.)  
 PROPOSED REBUILDING OF No. 181 WARDOUR STREET, W. RILEY AND GLANFIELD, F.R.I.B.A., Architects. (See page 65.)  
 METROPOLITAN WATER BOARD OFFICES: PRINCIPAL ENTRANCE. H. AUSTEN HALL, F.R.I.B.A.  
 ORDSALL HALL, LANCASHIRE. Drawings by WILLIAM EATON, A.R.I.B.A. (See page 65.)

## Notes and Comments.

### The Building Gilds Again.

THE Building Gilds are hard to satisfy. They can accord to their own account build better and cheaper than the contractor, and so have available wealth to distribute among the happy workers. Still they do not seem happy, and though they are to have twenty trial contracts they want more, and in addition a maintenance allowance for those unemployed. Surely all this trouble about small points is unnecessary for the gilds are going to do so well that the few remaining private contractors will be kept under glass as curiosities. But the gilds should remember that the public may get a little tired of hearing the advertised merits of an actor who never appears. Their endeavour should be to stop talking of what they are going to do, and continually asking, like Oliver, for more. If they prove their case they will get it, if not they are only wasting their breath.

### Inspection.

At a meeting of the National Federation of Property Owners and Ratepayers at Nottingham, one of the speakers said that bureaucratic control of everything, both national and municipal, was becoming a national danger. He gave the experience of a factory owner who said, "I am being inspected to death. Within comparatively few days I have had my factory inspected by the woman welfare inspector, the lady factory inspector, a petrol inspector, the Excise inspector, the water inspector, a Wages Trade Board inspector, the gas inspector, a nuisance inspector, a building inspector, the assistant-medical officer, the smoke inspector, the licence inspector, and a police inspector to inspect my motor van. I believe, the day is coming when we shall be inspected to bed at seven o'clock and out of bed in the morning, and that one-half of the country will be inspecting the other half at the other half's expense."

We have heard of similar complaints, and while we may agree with David Harum that a reasonable amount of fleas is good for a dog because it keeps him from worrying about being a dog, we may have too much of either fleas or inspection. We agree that the factory owner quoted had something to complain of.

### Dr. Addison's Explanations.

DR. ADDISON denies that any embargo has been placed by the Treasury on housing schemes, but he admits he has been conferring with it on the subject of refusing to sanction schemes which represent more than an agreed

expenditure per house. We suggest that this may probably amount to exactly the same thing, since it is the cost and supply of labour and materials which fix the price of housing. Houses will not be built for £700 because Dr. Addison or any Committee say that such a sum should suffice, and the position comes to this that they will probably not be built at all. If the Ministry of Health state that no houses will be sanctioned which exceed a certain price it is quite probable that labour may put in a better output, or, failing that, be content to take smaller wages. What we want is not committees of inquiry to tell us what we already know, but the sign that those in authority have a little backbone and will not waste public money to please the working man. If there are rings keeping up the price of materials by all means let them be dealt with, but so far this point has not been clearly demonstrated.

### The Registrar-General's Explanation.

IN a statement Mr. S. P. Vivian, the new Registrar-General, explained the figure of an estimated shortage of 140,000 houses given by the Registrar-General. He says:—"This estimate has been widely misinterpreted and misapplied. The perplexity thus caused in many people's minds can, however, be easily disposed of by drawing attention to the following two points:—

"1. The report in which that estimate appeared expressed no opinion as to the extent of the provision necessary to satisfy housing requirements. It did not state or suggest that those requirements could be satisfied by the erection of 140,000 houses. The total demand for houses is due to numerous causes of which the increase of population is one only. The report provided population statistics bearing upon the housing requirements arising out of that cause alone.

"2. The report is the annual report of the Registrar-General for the year 1919. The calculations referred to are based upon figures for the population at the mid-year date, viz., June 30, 1919. The estimate given should not, therefore, have been applied to conditions in 1921. Since June, 1919, the civil population has been increased by demobilisation and by births, and, if the calculations could now be made in respect of the present date, the results would be different."

We have no doubt that the above statements are justified, yet there is evidently an enormous disparity between the Registrar-General's statement of 140,000 houses in 1919 and Dr. Addison's 500,000 and it is that disparity which the public would like to have explained.

















*Proposed rebuilding of*  
N<sup>o</sup> 181 WARDOUR STREET W.



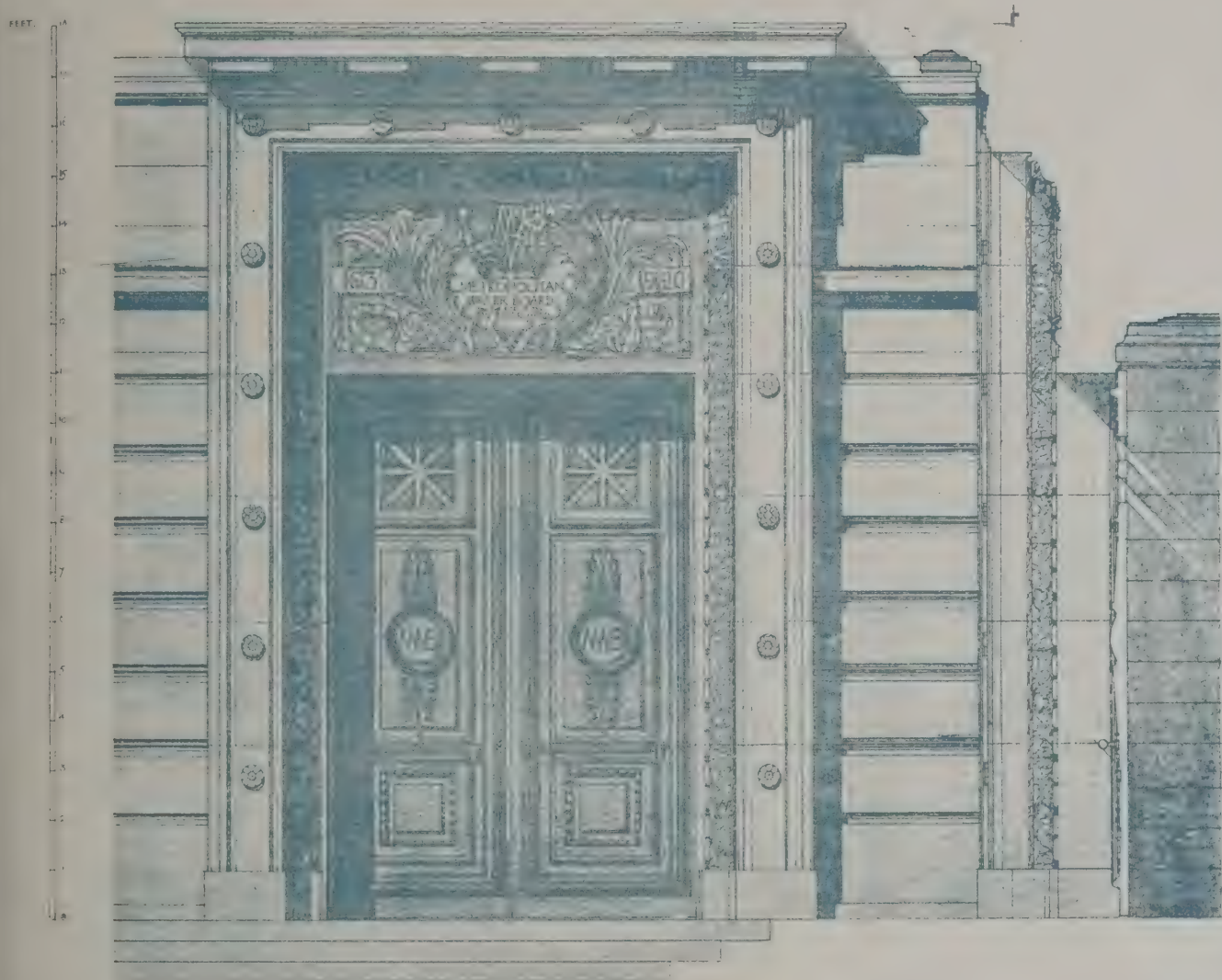
INK-PHOTO SPRAGUE & CO LTD 69 & 70, DEAN STREET, SOHO, W.

PROPOSED REBUILDING OF No. 181 WARDOUR STREET, W.

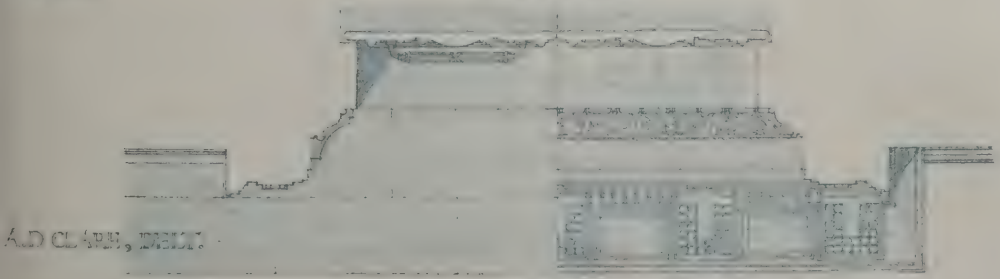
ERNEST B. GLANFIELD, F.R.I.B.A., ARCHITECT.



METROPOLITAN • WATER • BOARD  
PRINCIPAL • ENTRANCE



SCALE                      ELEVATION                      SECTION



A.D. CLARK, DESIGNED

H. AUSTEN HALL, FRIBA.  
3, NEW BURLINGTON ST.  
REGENT ST. W.

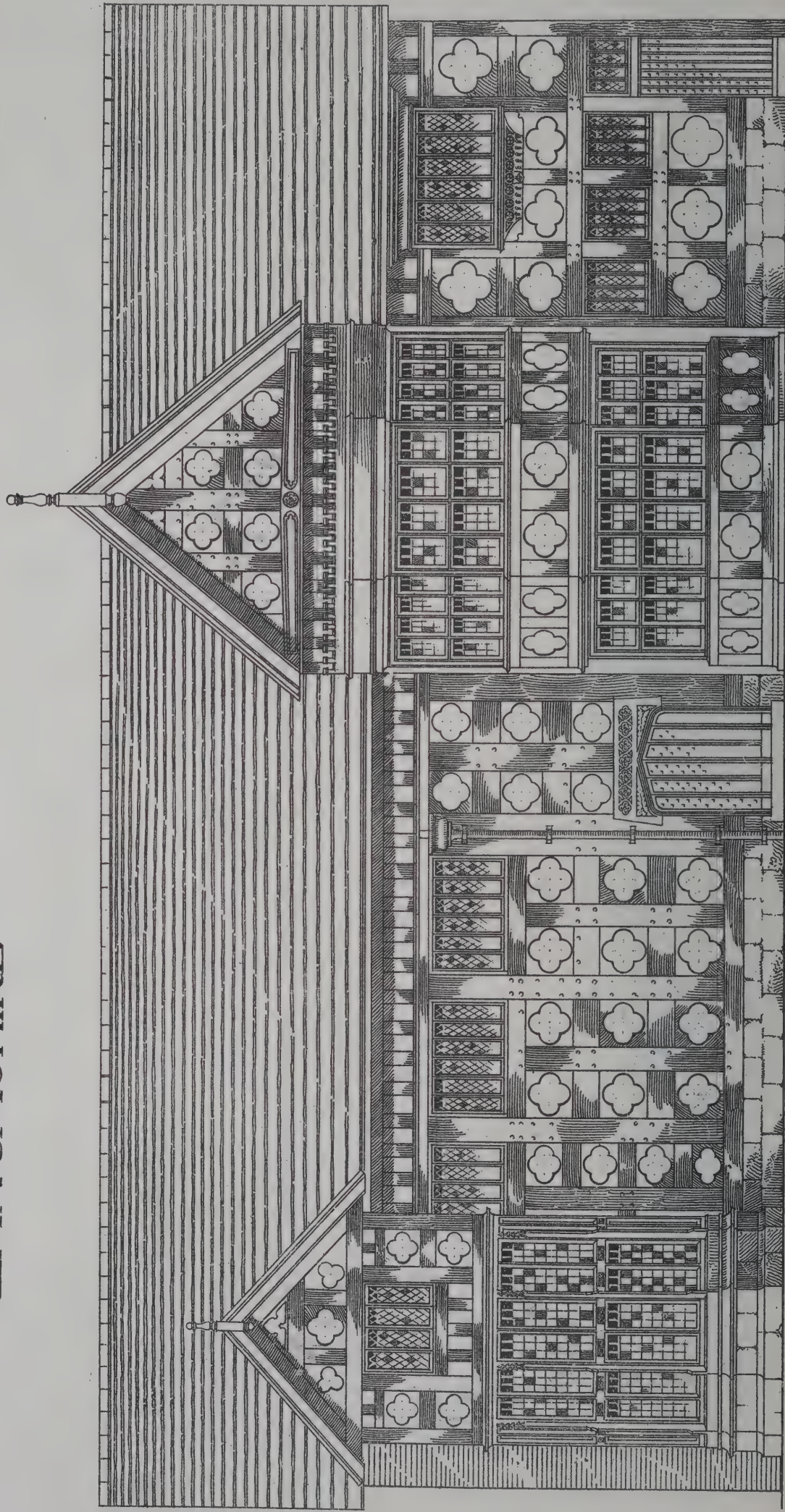






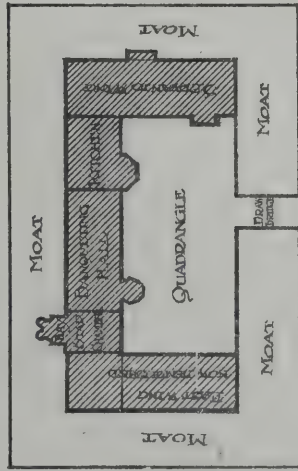
THE ARCHITECT, JANUARY 28th, 1921.

# ORDSALL HALL LANCASHIRE

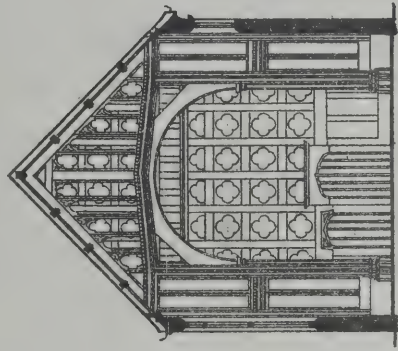




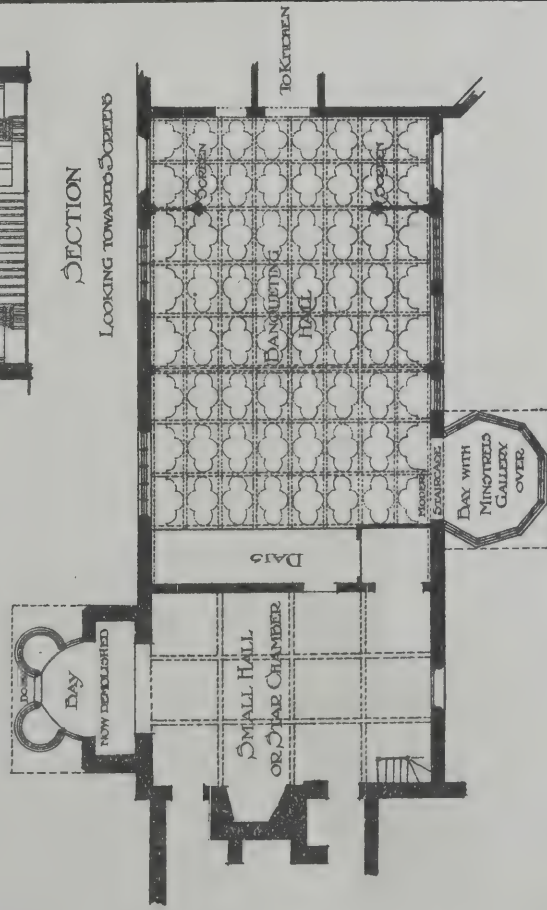
# ORDSALL HALL LANCASHIRE



PLAN OF HALL  
AS IT ORIGINALLY EXISTED

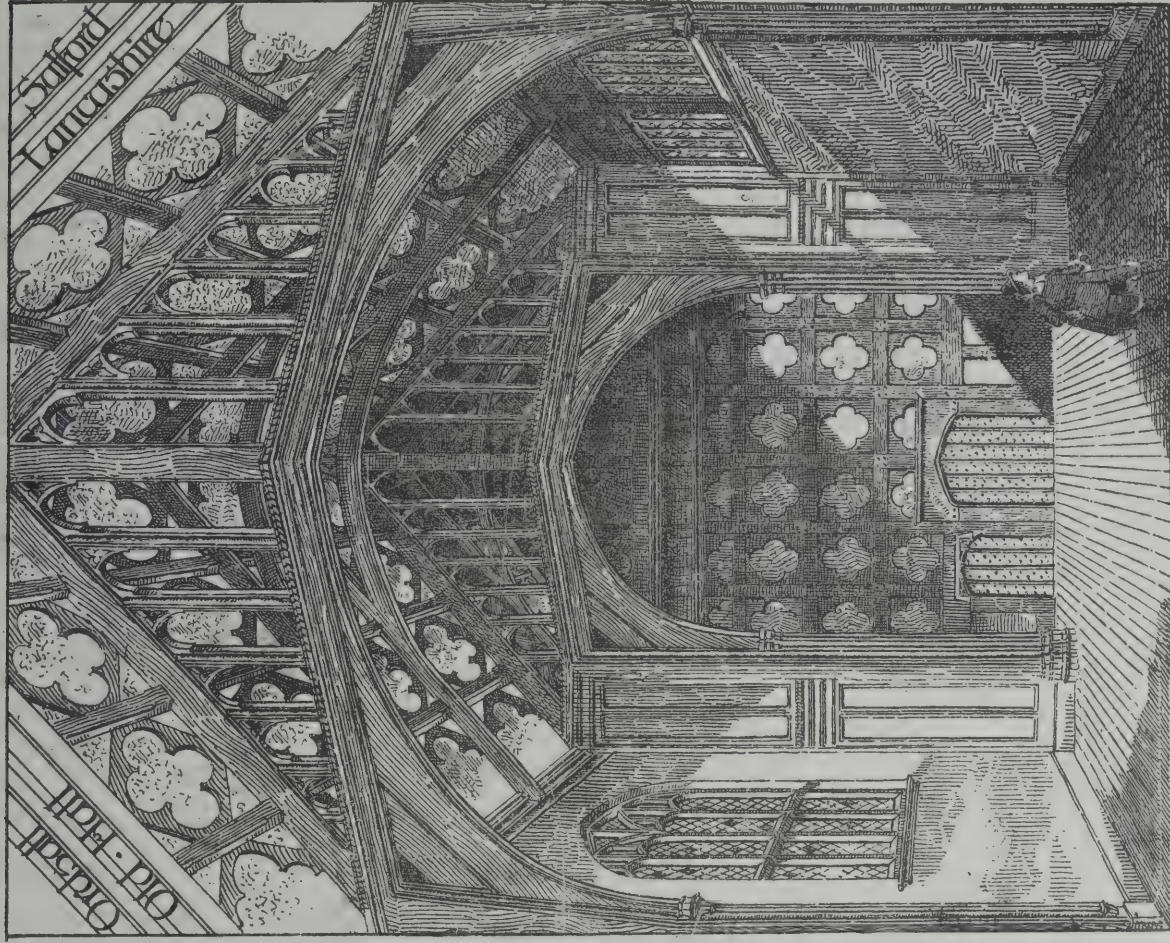


SECTION  
LOOKING TOWARD SOUTH



PLAN OF BANQUETING HALL & STAR CHAMBER

Scale 0 5 10 15 20 25 30 Feet



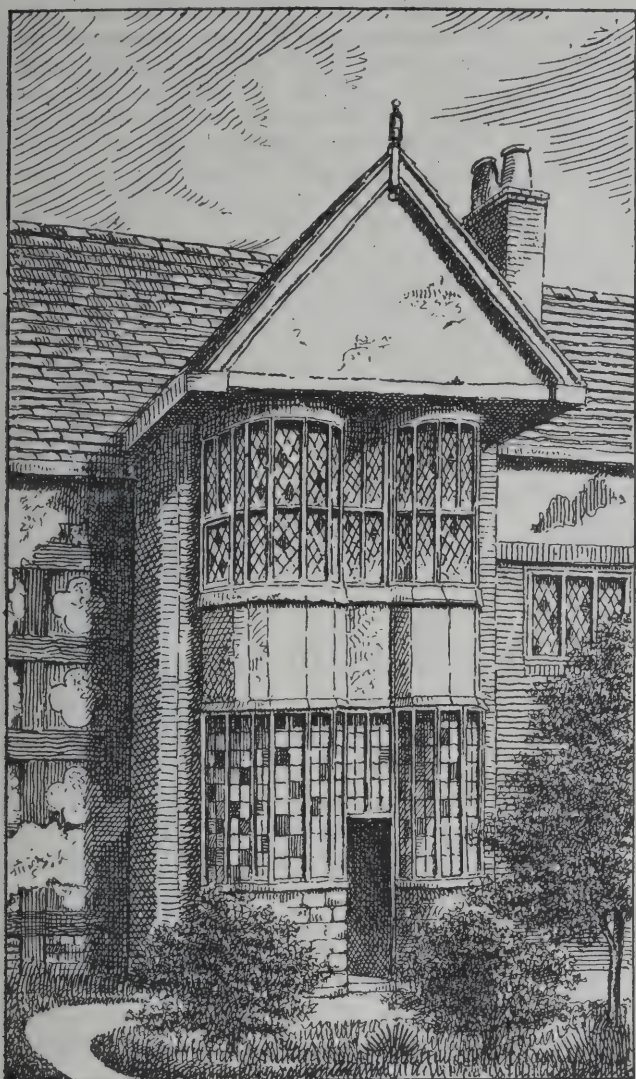




## An Historic Old Mansion.

By Wm. Eaton, A.R.I.B.A.

(See Inset Illustrations.)



BAY TO STAR CHAMBER.

THE outlook from Ordsall Hall must at one time have been of unsurpassing beauty, surrounded as it was by green fields and trees of luxuriant foliage, in addition to overlooking the river Irwell, on the other side of which was the picturesque half-timbered structure known as Hulme Hall, the scene of Harrison Ainsworth's first romance, "Sir John Chiverton." Now all is changed, the building being hemmed in by rows of mean, dingy-looking houses and huge cotton mills, with their tall chimney stacks emitting volumes of black smoke. It was at one time the ancient seat of the Radcliffes, a highly distinguished and notable family.

The Hall is admirably described in Harrison Ainsworth's "Guy Fawkes," in which it is stated that the plot was first mooted at this historic old mansion, but this is questionable, as the Hall was not built until 1609, and the plot burst in 1605. The Hall, in common with so many ancient manorial mansions, was originally encircled by a moat, and was approached by a drawbridge, the place of which was marked by an embattled gateway. There was also an easterly wing, which no doubt contained the domestic chapel, and which was pulled down some hundred years ago.

The interior of the banqueting-hall is exceptionally fine, and ranks as one of the most beautiful in Lancashire and Cheshire, counties which can boast of so many fine half-timbered structures. It measures 42 feet long by 25 feet wide, its height being 21 feet from floor-line to wall-plate, and 33 feet to the ridge. As in the majority of old halls, it contains a raised dais for the lord and master, and the usual screens at the buttery end, whilst over the bay window adjoining the dais is the minstrels'

gallery, now approached by a modern staircase. The screens, which are lofty and of bold design, were no doubt constructed to keep out the draughts occasioned by the opening of the doors which gave access from the quadrangle to the garden on the south side. The roof is open-timbered, and the massive moulded dark oak framing with the purlins, and the quatrefoil panels, show up in bold relief against the plaster filling.

Adjoining the banqueting-hall is the smaller hall, or star chamber, as it was commonly called, and which was used by the family as a withdrawing-room. It originally contained a quaint double bay of uncommon design, with a doorway in the centre giving access to the garden. This bay was considerably out of the perpendicular, leaning over greatly to the left as seen from the garden, and, being considered dangerous, was demolished during the alterations and renovations in 1898.

The star chamber contains a beautiful plaster ceiling of square and hexagonal interlacing panels, with moulded ribs, whilst the walls are covered with oak panelling, and on the opposite side to the banqueting-hall is an enormous fireplace. In close proximity to the star chamber is an old oak staircase with richly carved and moulded newels of Jacobean design, with turned balusters to match.

The northern elevation of the Hall is very dignified in appearance, and there is a strength and solidity about the massive oak timbers and framing, in striking contrast to most of the thin, wiry, sham, half-timbered work of the present day.

The Hall was altered and renovated in 1898 by the late Mr. Alfred Darbyshire, F.R.I.B.A. Previous to that date most of the exterior of the Hall was covered with lath and plaster, the posts having served as studs, to which the laths were nailed, but why the beautiful and massive oak timbers were covered up in this manner is a mystery.

A barn with oak columns and timber framing formerly stood in the courtyard, but about forty years ago it was pulled down. This barn is supposed to have been built with the remains of the timber removed from the site of the Manchester Cathedral, where stood a church up to the beginning of the sixteenth century.

## St. John's Church, Werneth.

(See Inset Illustrations.)

THE altar and reredos illustrated are being placed in the War Memorial Chapel, St. John's Church, Werneth, Lancs., by Mr. and Mrs. W. S. Stott in memory of their son, James Stott. The chapel is panelled, and will have the names of the men from the parish who fell in the war.

In addition, several of the other fittings are gifts in memory of particular men.

Mr. G. Tosi, of London, is responsible for the carving and decorations; Messrs. Duncan, of Oldham, the marble work; and the whole has been designed by Mr. J. Harold Gibbons, F.R.I.B.A., of J. Gibbons & Son. The drawing was hung in the last R.A. Exhibition, but owing to the colouring a satisfactory reproduction has been attended with considerable difficulty.

## 181 Wardour Street, W.

(See Inset Illustrations.)

THIS scheme was submitted in 1919 for rebuilding the above premises; the excessive cost, however, has delayed the work indefinitely, and it is doubtful whether it will now mature.

The building comprises a shop and workshops of four storeys, having a separate entrance on the ground floor. The elevation to Wardour Street was to have been faced with Crowbrough bricks with red dressings, ground floor to under-side of bay window in Portland stone, hardwood cornice painted white, bay covered with lead, and pan-tiled roof.

The drawing was hung in the Royal Academy last year, and the architects were Messrs. W. E. Riley & Glanfield, F.R.I.B.A., 6 Raymond Buildings, Gray's Inn, W.C.



## London Art Galleries.

(All Rights Reserved.)

AT Walker's Galleries, in New Bond Street, was opened last week an exhibition of the work of Mr. Guy Lipscombe. These are mostly portraits, though a few landscape studies are with them; and as a matter of fact the moonlight nocturne, possibly of some scene in Italy, called "La Sentinella," is one of the best paintings in the room. Among the portraits I noticed especially "Miss Tellwright," a charming blonde in evening dress of white muslin, standing upright and painted three-quarter length; "The Little Parasol," another three-quarter length, where the sitter is in dark blue; and "Mrs. James Harvey" and the young figure of "Joan" on the next wall. The male portraits include Captain Felix Gravé, whose name I know in connection with the foils, and who is here depicted in full fencing kit, and looking very much like business in that direction: but by far the strongest portrait here, in my judgment, is that of "S. Cromarty Dickson, Esq.," who wears the kilt and picturesque Highland costume—a vigorous and well-handled portrait.

Messrs. Walker have at present in their hands for arrangement a very remarkable collection of material connected with Norfolk, which seems to have been brought together by the late Rev. James Bulwer. This includes numerous portfolios containing engravings, broadsheets, and drawings—among which, I understand, are some Cotmans—as well as seals: the link between all these appears to be their connection with Norfolk, and it seems to be a matter which ought in some way to be preserved within that county.

Messrs. Colnaghi, in their Bond Street Galleries, have this month brought together a very representative selection of work by modern etchers, including Borein, Muirhead Bone ("Stirling Castle"), the late Anders Zorn ("Seaward Skerries," two of his bathing figures), F. Lumsden ("The Bathers," a scene in some sacred Indian river), C. Baskett, Sir Frank Short ("Last Days of an Old Brig"). The same artist has a good study of Polperro, in Cornwall, and Mr. D. Y. Cameron an admirable etching of the Vale of Clyde, in the only state of the plate. But a most important feature are the etchings and woodcuts by Lepère, of which there are about forty, almost filling the whole of one wall. I have already, in a recent issue, given a full notice of this fine craftsman's work when exhibited last year in these galleries, and therefore will not say more on this subject to-day, except to mention his fine "Cathedral of Amiens," in the first state of the plate, his etching of a poultry market (Marché de Volaille), and his wonderful wood engraving of "Paris sous la neige."

I come now to a very interesting exhibition, that of the etched work and drawings of the late Edgar Wilson at the Twenty-One Gallery. I remember very well Edgar Wilson's work in the 'nineties, and even earlier, in connection with that clever comic weekly called "Pick-me-up," to which he often contributed dainty little pen-and-ink drawings: later he was art editor of another weekly called "The Butterfly," which for the (judged by present prices) modest sum of 6*d.* offered the work of a very brilliant group of young artists and writers, many of them since famous, among whom I may mention Max Beerbohm, Manuel (whose death was a loss to our art illustration), Raven Hill, and, on the literary side, Walter Emanuel, the late well-known contributor to "Punch," whose loss we also deplore. In the pages of "The Butterfly," which enjoyed a short life only—from 1889-1900, but not, I believe, much longer,—are to be found some of Edgar Wilson's etchings reproduced, among which I may mention a clever study of "Shoreham Harbour"; but he never pushed his work into public notice, and it was only the exhibition at the Twenty-One Gallery in 1914 which first brought his etchings before collectors in a set of fourteen little etchings of London. A second set of

London—ten small etchings—was published in 1915, and only a few days after the opening of his last exhibition, in February of 1918, the artist died.

Edgar Wilson was a many-sided man in art: when young he had worked at Doulton's on pottery and tiles, and a fine stoneware vase from his hand is shown in this exhibition: later he came under the spell of the Japanese masters of engraving, and their prints remained one of the lasting passions of his art life. His etchings are always clean and well drawn—the docks and wharves of lower Thames being favourite subjects—though sometimes a little compressed and wanting in breadth: but we do not feel this at all in his fine plate of "Greenwich Hospital" here, in his "Under Chelsea Bridge," or his important "Upper Thames Street," or "Church Row." His pen-and-ink drawings, sometimes tinted with a wash of colour, are admirable ("The Peacock," "The Kingfisher," "Sussex Mill"). In his "Venice" it may be questioned whether a wash of unpleasant yellow does not harm a really fine drawing of the famous Piazzetta and Campanile: but his pen-and-ink, with a colour wash, of the "White Hart Inn" is a little masterpiece, and I cannot praise too much his superbly decorative pen-and-ink design of "Fishes." Edgar Wilson never advertised his art; and it is only now that he is gone that we are beginning to appreciate its merits. S. B.

## Art News of To-day.

ON a slope of the Sussex downs to the north of Brighton has just been completed the Indian War Memorial, which now awaits the promised visit of the Prince of Wales to Brighton on February 1 for its dedication. This monument, or Chatri, is the accepted form of Indian memorial to the dead: it is not regarded so much as a place of burial as a token of veneration for the departed: for it was on this very spot that the remains of the Indian soldiers, who died at Brighton in the war, were incinerated and placed in urns before the actual monument was even thought of. It will stand, therefore, as a worthy memorial of the heroic efforts and sacrifices of India and her peoples during the great war; and its design, which is severe and harmonious, has a fine surrounding in the sweep of downland. The material used is marble and blue-grey granite, and it is proposed to plant cypress trees, with myrtle and flowering shrubs, around.

In reference to the stolen Rembrandt, which we mentioned in a recent issue as being stated to be on its way from Hamburg to London, much interest had been roused by the report that this painting, valued at 2,000,000 marks, was believed to be on the Cunard liner *Mongolia*, en route for America. As a reward of 50,000 marks was offered for its discovery, we can be sure the New York Customs inspectors made a careful, though vain, search when the great liner arrived. The actual value of the painting at present exchange would be about £8,500.

The exhibition of modern Dutch art at the White-chapel Gallery, under the auspices of the Society who organised the successful exhibition of the same subject last year at Brighton, has awakened much interest, and the Queen of Holland telegraphed her good wishes for the opening to the Trustees of the Gallery.

We have already mentioned the important sale of arms and armour, including those belonging to the late Mr. Weedon Grossmith—at Messrs. Christie's on January 25: on Friday, January 28, will come under the hammer a number of drawings by the Old Masters, and old pictures, including works by Titian, Longhi, Piazzetta, Goya, and such primitives as Sano di Pietro and Matteo da Siena. There is some talk of a sale of Primitives here later in the spring, but we cannot yet confirm this definitely. Last week in these sale-rooms Sir Alma Tadema's painting of the dressing-room of a ladies' bath under the Roman Empire sold for 1,020 guineas.



## The Architectural Association.

AN Ordinary General Meeting of the Architectural Association was held on Monday last, the 24th inst., at 34-35 Bedford Square, W.C. Mr. L. S. Sullivan, A.R.I.B.A., Member of Council, occupied the chair. The proceedings began with the usual informal dinner in the Association's dining-room. A lantern lecture was then given by Mr. Percy A. Wells, head of the furniture department of the Shoreditch Technical Institute, entitled

### MODERN FURNITURE DESIGN AND DECORATION.

Introducing himself as "an outsider from Shoreditch," Mr. Wells said he had been much interested in reading the address given recently in that room by Mr. Robert Atkinson, in which it was complained that the architect was the last man to lay down the furnishing scheme for a house. With that statement Mr. Wells quite agreed, and he regretted that in the past, generally speaking, the architect had not been consulted as much as he ought to have been. For example, take the new cottages: it must be perfectly painful to an architect who has designed good, simple, dignified rooms and given his best thought to the needs of future occupants when he realises that these rooms are to be degraded by horrible furniture. It would be a splendid thing if one of the great cities or corporations would commission an architect to design furniture suitable for a cottage. Architects would have jumped at such a chance. In every one of the new cottages into which he had entered Mr. Wells said it was painful to see in very delightful rooms how the whole scheme had been degraded by ugly and unsuitable furniture.

Quality in modern furniture depends upon the methods of production, and those methods vary in many ways. The great mass of English furniture in its design and manufacture is dominated by the historic styles. Commercially that was only too true. Yet, apart from actual reproductions, this seemingly slavish adulation of styles, this following, copying, and studying of styles has led to a great improvement in the general practice of designing. Think of the sideboard of twenty years ago with its plate glass, its frightful carving and all the rest, in which everything could be seen except the sideboard. That kind of thing was now dying, very few are made to-day. The best English furniture may now claim to be the best in the world. That fact is proved by the demand for it all over the world, especially from South America; even in France English furniture is exceedingly popular. The reason being that we have a great tradition behind us influencing the trade. It is extremely unlikely that our makers and designers will ever get away from this great tradition. The slavish following of styles has its virtues as well as its vices. The faker was one of those vices. There were, of course, frank reproductions about which there was no question of fake; these were made as reproductions and sold as such.

The historic styles have been studied and interpreted to meet modern requirements and method of production. Sir Samuel Waring had recently said: "Historical styles of the past are the result of slow processes of evolution. They did not spring into existence suddenly, but were the growth of time and the result of individual treatments of prevalent forms. There is nothing far-fetched in assuming that what has been may be again. The note of to-day in decoration and furniture is simplicity. This very simplicity—which after all is the highest art—may be the seed of a twentieth-century style which later ages will make historic." On the other hand, we have to admit that a slavish reference to styles and a copying of styles blots out initiative and stifles natural growth and development. The intelligent designer will not slavishly follow styles. He is up against a demand, and his firm insists probably on his design following some particular historic style. But the productions from the big factories are of a different character. In the shops are to be seen suites of what is called "rubbed down" Jacobean, that is, copying furniture worn down by personal use. Some of it looks extremely interesting and fine; but what

could one say of the gullibility of the public who buy these things as real Jacobean furniture?

The great traditions ought to lead to something more than the copying of styles. He dared to hope that they were not altogether lost, that they still inspired the work of to-day, and they must continue to influence the work of the future. Whatever changes have taken place, or may come, the traditions behind a great craft must continue to hold the imaginations of the workers in it, whether individual or collective, whether conscious of the fact or not. When that spirit is entirely lost a craft must become debased and barren or cease to exist. Perhaps we have lost much which appears to be beyond the hope of recovery. Every period of change must bring a profit and loss account; but whether as an ideal to follow or one to strive after, whether in the workshop or the studio, these traditions are active forces which work for good or ill in the production of English furniture. One could not get entirely away from great tradition unless one got down to first principles, such as fitness of purpose, construction, and honesty. It was unfortunate that when the aircraft factories were being converted into furniture factories these first principles were not taken into consideration. There was a big demand at the time for simple and economical furniture and a great business could have been developed. But the factory people were in a hurry to catch the market; consequently they flooded the market with inferior stuff and there was a slump.

There were four types of producers of furniture. First came the individual designers, like Ernest Gimson, Charles Spooner, Romney Green, W. R. Lethaby, and others. Gimson was a man of strong views, but he was a great designer, a fine craftsman, a master of proportion and of material who got everything there was to be got out of it, and above all, he was a fine man. But the work of these individual designers has had very little influence on the mass of furniture as a whole. These fine craftsmen can only appeal to people with money and taste, so that their influence is necessarily very limited.

The next type were the best furniture firms. Waring and Gillow stand at the top because they aim at and maintain a very high quality and standard. He understood that not one of their designs was ever exactly repeated. They interpreted the styles in the sanest and most refined way. Ambrose Heal was a commercial man, but he was also a pioneer of versatility and daring. Morris and Company were quietly doing some very fine work indeed; it was to them we owed the revival of attention to the old craft of marquetry, which was practically murdered by sloppy and cheap work.

A third type were the great machine firms like those at High Wycombe. Their plant must be kept going, and they turn out hundreds and hundreds of the same type of thing. Machine-made furniture need not necessarily be ugly; by a combination between designer and workman it can be made quite pleasant to look at. It is impossible to imagine the workman as having an entirely free hand and showing his individuality, however much one might desire that to happen. But it would seem as if the machine has become our master instead of our servant. Machinery can be made to turn out good and pleasant and honest furniture.

The last type was the craft school. A furniture school can afford to make experiments. It was because of that fact they have been able to show what could be done in the way not only of the more expensive furniture, but also of the simpler kinds. The L.C.C. Central School of Arts and Crafts has turned out some very creditable and finely designed pieces. The Shoreditch Technical School has also had some influence round about.

The study of styles has not only improved the actual workmanship, but it has improved our sense of proportion and knowledge of material and its decorative qualities. Curiously enough, the revival of eighteenth-century furniture has to some extent eliminated the use of machinery, for a machine cannot select, build up, and



arrange the pattern of an inlay. The same may be said of the Queen Anne Revival in walnut. Carving and decoration has almost gone; this is due to its having been overdone on the cheaper kinds of furniture. Whatever is still done is limited chiefly to civic and ship furniture. Veneer work has come to balance the loss of marquetry and carving. In the last few years there has been a revival of painted work. This fashion is not, as is sometimes stated, entirely new: it was done in the eighteenth century—to go no further back. People are rather afraid of it apparently, though they like colour in clothes and pictures. Mr. Wells mentioned that he had designed a suite of painted furniture for a Government cottage, which was exhibited. The great advantage of painted furniture was its honesty and that certain varieties of wood unsuitable for staining may be used; it can be bright and cheerful.

A house is not a home until it is furnished; and the work of furnishing, closely allied with the great mother art of architecture, embodies some of the finest traditions in craftsmanship. These traditions still inspire the work of to-day, and must continue in the future, for good or ill.

#### DISCUSSION.

Mr. Francis Hooper, in proposing a vote of thanks, remarked on the number of ladies present, and was of opinion that they were particularly in their own domain when the discussion was on domestic furniture. He remembered seeing at Shoreditch a very distinct effort to introduce colour in furniture. It was interesting to hear that Mr. Wells was trying to get effects by proportion, colour, and the absence of unessentials. Personally, he firmly believed that bad furniture looked worse in good surroundings than in bad, and that its owners would feel less ashamed of it in the latter. Mr. Wells had not included the name of Mr. C. F. A. Voysey among his short list of notable designers: Mr. Voysey has done a great deal, and he deserves the thanks of the present generation for his efforts to raise the tone of domestic interiors during the last twenty years. Things seemed now to be moving quickly, and he expected they would be enjoying before long the results of the various craft schools.

Mr. George Corderoy seconded the vote of thanks.

Mr. L. S. Sullivan, before putting the vote to the meeting, mentioned that during the last two or three years he had been designing furniture somewhat on a wholesale scale for construction in a factory. The firm was so big that the stuff was being reproduced practically in mass. Consequently, it was all the more necessary that designs should be simple and free from mistakes in taste, line, or material. Any mistake made would be reproduced by the hundred. There could be no doubt as to machinery being able to turn out good designs under proper conditions. Ultimately it still comes down to furniture production being finished by hand and passing through not one but many hands. If the men are interested in what the designer is after their work is made to suit his requirements, and they will probably bring him suggestions for possible improvements. No designer should be above accepting suggestions.

The vote of thanks was then passed by acclamation.

Mr. Percy Wells, in replying, mentioned that the Trades Unions were beginning to strike against mass furniture production. For the first time, he believed, in the history of trade unionism there had been a strike on an issue other than that of wages. As to the question whether man or the machine should be the master, he believed the former; for man was indispensable to all the processes.

**THE King's Lynn War Memorial**—a Portland stone cross, designed by Messrs. O. P. Milne & Paul Phipps, architects, of London—was unveiled on Wednesday by Princess Mary.

The efforts to save the old moated house known as Southcote Manor, near Reading, have proved fruitless, and it is probable that the place will be demolished within the next week or so. So short a time was allowed for obtaining the necessary £3,500 that it was felt unwise to proceed with the matter.

## The R.I.B.A. Prize Drawings.

THE Tite Prize has been won by Mr. Gordon H. G. Holt with a set of drawings which, whether considered from the standpoint of design or draughtsmanship, are in advance of any of the others submitted. We shall be illustrating it next week; meanwhile, it is sufficient to say that it is an almost perfect example of what a graphic illustration of a literary description of a building should be, and its notable features are refinement and character.

The design marked with a red circle is of a different character. Here the designer has conceived a T-shaped design the head of the T forming the entrance front. The arrangement and planning is that of a modern house surrounding an atrium and small square inner court which are flanked by two low towers. The sides of the head of the T are formed by a kitchen court and yard flanked by low buildings and a corresponding colonnaded swimming bath and games wing. The design is carried out in a version of very simple Florentine Renaissance, and might well serve as the country house of a millionaire. It is the most interesting and suggestive design of any submitted.

Of the remaining designs that sent by "Arc" is one of the best, while "Giagan" which secures an Hon. Mention for Mr. A. G. Paton has merit, particularly in the treatment of the main front. "Gallus" sends a creditable design with a very good sheet of details, while "Sealeless" submits a scheme having merits.

But nothing submitted is in the same category as the first two designs mentioned, most of the competitors sent work which somehow or other suggested designs of the mid-Victorian era, when the niceties of the Italian Renaissance were hardly appreciated or understood, and when a cloak of mediocrity made all attempts at classical design commonplace and uninteresting.

The Measured Drawings Silver Medal and £50 is awarded to Mr. J. H. Odom for an excellent set of drawings of King Charles Block at Greenwich Hospital. The very interesting north or river front is a little more weakly drawn than the long flanking elevation and we feel the first floor windows are a little out of drawing—if our recollections are correct.

A very finely tinted detail elevation of the portico to Prior Park is submitted by Ralph Allen; light and shadow being unusually well manipulated.

Mr. C. Leckenby obtains a certificate of Hon. Mention for some good pencil drawings of the Temple of Bacchus at Baalbek submitted under the motto "Sapper." A good set of drawings of St. Mary Woolnoth submitted for the Prize should have special interest at this time, but fail to convince us of the merit of Hawksmoor's curious *tour de force*.

The drawings of Mr. H. St. J. Harrison, the Pugin Student of 1920, are as usual a good testimony of the industry of winners of these distinctions.

Taken as a whole the year's exhibition is not an inspiring one, but rather suggests the reaction after strain.

At the monthly meeting of the Incorporated Church Building Society, held on the 20th inst. at 7 Dean's Yard, Westminster, grants were voted towards building Christ Church, Pixmore, William Herts, £200; and towards enlarging or repairing the churches at Ashmanhaugh, St. Swithin, Norwich, £25; Rampside, St. Michael, Barrow-in-Furness, £50; and Seaview, St. Peter, Isle of Wight, £50. Several grants were also paid for works completed. In addition £700 was paid towards small repairs to thirty other churches.

THE Trustees of the Whitechapel Art Gallery are appealing to old subscribers to renew and increase their subscriptions. They also appeal for new subscribers. The balance sheet for 1919 showed a considerable sum in hand, which had been accumulated during the war; but this balance was entirely absorbed by the first exhibition held in 1920 owing to the increased cost of carriage, labour, and materials. At the same time the income of the Gallery has been considerably reduced. The war curtailed many activities, but now an effort will be made to revive the work on the full lines of earlier years.



## The Society of Architects.

WE give below some notes from the minutes:—

*Architects' and Surveyors' Assistants' Professional Union.*—A communication has been received from the Union intimating that in the absence of any decision being made by the Council of the Society before January 22, 1921, on the proposals of the Union for a minimum wage the Union would feel free to publish its recommendations. The Council decided to acknowledge the receipt of the ultimatum.

*Unification.*—It was reported that a further meeting of the Sub-Committee would shortly be held to complete the draft proposals for amalgamation and federation for consideration by the main Committee.

*Purchase of Books.*—It was decided to take advantage of the present rate of exchange to purchase a number of Italian architectural works for the Society's library.

*Building Exhibition, 1921.*—The Joint Committee had met and formulated a preliminary programme for the approval of Mr. Greville Montgomery, and the Joint Secretaries were engaged on elaborating the details.

*Housing Fees.*—It was reported that arrangements had been made for representatives of the R.I.B.A. and the Society to meet the Ministry of Health on January 19 on matters relating to the scale of charges for housing schemes.

*Scale of Charges.*—It was decided to approach the R.I.B.A. and the Surveyors' Institution with a view to joint action being taken to bring into line the scale of fees relating to the negotiations for purchase, there being a discrepancy between the surveyors' and the architects' scale.

*Membership.*—Thirty-nine applications were dealt with, of which seventeen were passed on for announcement. Two ex-members were reinstated, two resignations were accepted, and one death was recorded.

*Professional Etiquette.*—A case of an alleged infringement by a member, of one of the Society's regulations, was referred to a Committee of Inquiry.

*Architects and Housing.*—It was brought to the notice of the Council that a City Member had made a public protest against a corporation housing scheme being placed in the hands of an official, to the detriment of practising architects following the principle advocated by the Society.

*Competitions.*—The conditions of the Calcutta Competition were received, and joint action with the R.I.B.A., taken with a view of amending the conditions, was reported in regard to a limited competition at Colwyn Bay.

*R.I.B.A. Model Conditions for Housing Competitions.*—The Council decided to approve the conditions, subject to the deletion of Clause 11, which suggested that candidates should be guided by the Ministry of Health Manual.

*Competition Regulations.*—It was decided to take further action in pursuing the proposals of the Secretary for a scheme of joint action to unify procedure in all architectural competitions.

*Royal Academy Ateliers.*—The Society's representative reported progress in regard to the proposal for a permanent *en loge* building, on which the patrons of the recognised ateliers were preparing a report for the consultation of the R.A. Atelier Council.

*Country Meetings.*—The Council have adopted in principle a proposal to hold periodical meetings of the Society in other districts than London, and a further announcement is to be made in due course.

*Annual Meetings.*—At the annual meeting on January 13 the Council's Annual Report and balance sheet were adopted, the auditors reappointed, and the outgoing officers and Council thanked for their services. Subsequently the President presented the medals and prizes to the Victory Scholarship winners, and there was a criticism of the designs by a member of the jury.

ANY architects who have used the Form of Contract No. 3 issued by the Ministry of Health are requested to communicate with the Secretary of the R.I.B.A.

## Royal Institute of British Architects.

THE following notes are from the Council proceedings on January 17, 1921.

*Award of Prizes and Studentships.*—The Council approved the report of the Board of Architectural Education on the annual award of prizes and studentships and ordered it to be announced at the general meeting on January 17.

*The University Court, Liverpool.*—On the recommendation of the Liverpool Society of Architects the Council appointed Mr. E. P. Hinds (F.) to serve as the representative of the Royal Institute on the Court of the University for the years 1921, 1922, and 1923.

*The Pugin Studentship.*—The Council approved the report and drawings submitted by Mr. St. John Harrison the Pugin Student for 1920.

*London University Architectural Education Committee.*—Mr. Arthur Keen and Mr. Paul Waterhouse were appointed as the representatives of the Royal Institute on the Architectural Education Committee of the University of London for the year 1921-22.

*Royal Sanitary Institute Congress 1921.*—Mr. H. D. Searles-Wood (F.) was appointed as the representative of the Royal Institute at the Congress of the Royal Sanitary Institute to be held at Folkestone from June 20 to 25, 1921.

*Apprenticeship in the Plumbing Trade.*—Mr. H. D. Searles-Wood (F.) was appointed as the representative of the Royal Institute on the Committee dealing with the National Scheme of Apprenticeship in the plumbing trade.

*Professional and Technical Civil Servants in Ireland.*—A communication has been addressed to the Chief Secretary for Ireland urging the appointment of a representative of the Professional and Technical Division of the Irish Civil Service on the Civil Service Committee.

*Royal Commission on Fire Losses.*—A communication has been addressed to the Home Secretary urging the appointment of one or more architects on the Royal Commission that is to deal with the question of fire control, losses, etc.

## "The Architect" Fifty Years Ago.

JANUARY 28, 1871

It is well known that for nearly twenty years past the Queen has placed at the disposal of the Royal Institute of British Architects the nomination annually of a fit and proper person to receive, with her Majesty's approval, and as her Majesty's special gift, a Gold Medal in recognition of his claims as an artist or man of letters in the field of architecture. We have unusual pleasure in announcing that for the present year the Council of the Institute have determined to recommend to the general body, for the honor of their nomination to the Queen, Mr. James Fergusson, D.C.L., F.R.S., &c., the eminent writer of the "History of Architecture," which is so well known to both professional readers and others, as well as of many other works less voluminous, but equally meritorious, in the department of architectural and kindred literature. Mr. Fergusson is nominally a Fellow of the Institute, although in reality an amateur; and it will be remembered that he recently held office for a short time, under Mr. Layard's Chief Commissionership, as Director of Government Buildings, making way for Captain Galton when Mr. Layard gave place to Mr. Ayrton. The Royal Gold Medal has been awarded by her Majesty to many distinguished architects and writers, both English and foreign, but no one has had a more graceful claim upon the Royal gift than Mr. Fergusson.

NOTIFICATION has been received from the Commercial Secretary to His Majesty's Legation at Lima that there is a good demand in Peru at the present time for structural steel and other building materials as a considerable amount of building is in progress and under consideration in connection with the forthcoming Centenary celebration of Peruvian Independence. United Kingdom firms interested may obtain a list of the principal dealers in building materials, etc., established at Lima on application to the Department of Overseas Trade, 35 Old Queen Street, Westminster, S.W. 1, quoting 2125/FL/PN.



## Ravello.—II.\*

By Professor Renato Paoli.



PLATE I.—ENTRANCE TO RAVELLO.

How many Italians are there who know the city of Ravello? And who would believe that on this hill, where two small market towns barely subsist, once there flourished two cities, Ravello and Scala, which S. Bernard, in writing to Lothar, once called "most opulent, well fortified, and unconquerable?"

A broad carriage road with great sweeps on the high ground follows the windings of the coast; the wide plain is cultivated with vineyards, kitchen-gardens, and woods. We enter the little town itself (Plate I.) beneath the arches of an ancient church which has been half demolished. We pass along narrow streets, solitary and picturesque, between houses which bear upon the architraves of the windows and doors built in fragments of mediæval work and Roman sculpture. There are many hotels and pensions for visitors; and a noble Villa, the Villa Rufolo, shaded by cypresses and ancient pines, with towers and mediæval fortifications, and (Plate II.) a fine cloister with slender columns and Gothic arches, and, above all, a "belvedere" looking out over the sea (Plate III.) from which a stupendous view may be enjoyed.

There is another remarkable view over the sea from another villa, placed on the extreme end of the promontory, the Cimbrone; and two churches await us, as vast and solemn as cathedrals. One of these, the Duomo, has doors in annealed bronze of the year 1000: the other, S. Giovanni del Toro, rivals the Duomo in the rich decoration of its Ambos, which are masterpieces of sculpture and mosaic art. The inlaid work, brilliant in colour, based on the harmony of green and blue, recalls the art of the Saracens, and, afar off, that of Persia: but the symbolic Christian figures, the peacock of the Resurrection, the cock of preaching, the sea-monster of Jonah, bring us back to the art of the Cosmati, but with a more intense sense of colour, more movement in the figures, a more accurate study of nature.

In the pulpit of S. Giovanni del Toro azure majolica,

united in a web of glass and marble, still shows in Arabic characters the invocations and prayers of Islam. In the pulpit of the Cathedral—beneath a fine head, a fragment of Greco-Roman work—is the portrait in bas-relief of Sigalgaita Rufolo, a gem of thirteenth century sculpture with which Master Nicholas di Bartolomeo di Foggia, probably coming from the same Apulia whence came Nicola Pisano, the famous renewer of sculpture in Tuscany, sought to pay his homage to the charm of a pious lady of Ravello.

Upon the coast of Amalfi, from Positano to Vietri sul Mare, there flourishes a kind of popular architecture, which does not recall any style of the schools which have existed, and has no counterpart in central or northern Italy. It forms, in fact, one of the most curious and interesting features which can be studied at Amalfi.

It is true that there are still people in Italy who would deny the existence of a decorative art which is frankly an art of the people, cultivated by the side of a decorative art which we might describe as courtly. This attitude is like denying the existence of the sun: nor need we under these conditions be surprised that many others are not aware that several regions of Italy can boast of a local architecture which is no less frankly popular. In the South of Italy more than elsewhere, this South which by its geographical position and its historic turns of fortune has remained for centuries apart from the rest of Europe, there has been preserved better than in North Italy the regional pagan character with its distinct personality.

Specially is this the case upon the littoral of Naples and Salerno, perhaps in virtue of that drop of the old Hellenic blood which courses through the veins of the

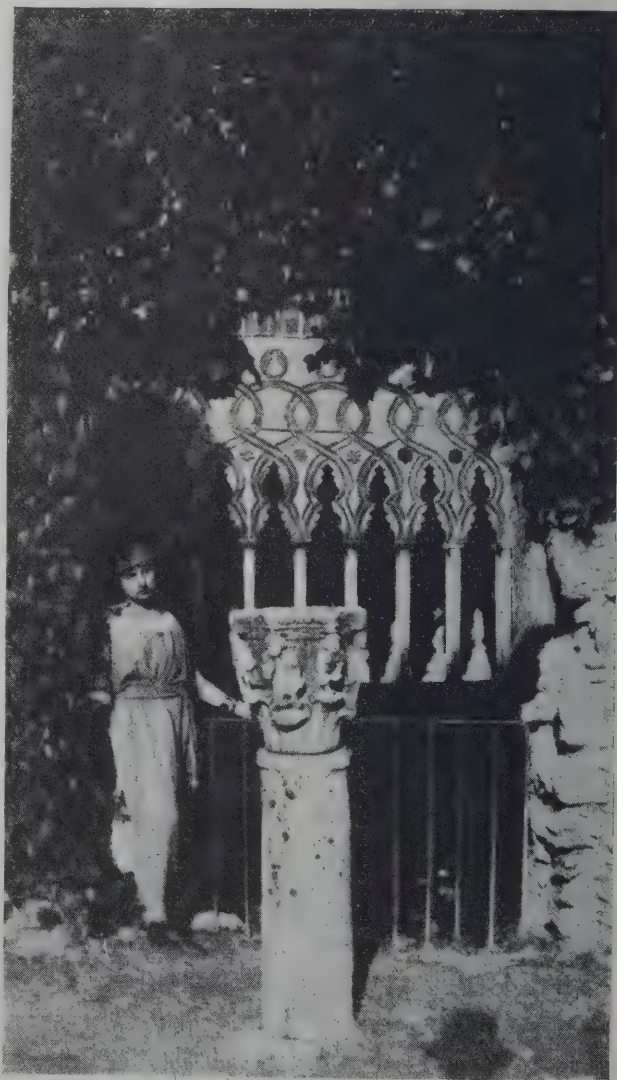


PLATE II.—RAVELLO.—CLOISTER OF VILLA RUFOLO.

\* I.—Amalfi. July 2.





PLATE III.—PANORAMA FROM THE VILLA RUFOLO.

natives of this coast: for here there has remained in every order of the citizens, but most of all in the class of the people, an innate sentiment of harmony and beauty, which we should seek for in vain among the Italians of the North.

In Piedmont, in Lombardy, in the Veneto, in Emilia, where there are piled together such priceless treasures of courtly art, these manifestations of the art of the people become more scarce. Now it is in those very districts that the class hatred, sour and crabbed in its nature, is most spread, with all those envious passions which make happiness to depend on the brutal enjoyment of material things, which tortures the body and wears out the spirit in a frenzied pursuit of riches. It is a struggle there with closed teeth, with eyes full of silent rage; and the working-man in his dress, his furniture, his home, has no further thought for what appealed to his personal taste, and had for that very reason so much character, but seeks to be the equal of the "gentlemen" ("signori"), the small shopkeepers, or the ruling classes. And he adopts their fashions, imitates their ways, in the adornment of his house, in every detail of his life, so that the uniform grey polish of the shopkeeper class extends into the most remote corners of the country-side, and kills every traditional variety.

In the south of Italy, on the contrary, by great good luck, the daily practice of life is still illuminated by a peaceful and serene idea of the world, and contemplated from a higher point of view, just as the intelligence of the people themselves is of a higher order. Already in comparing the dialect of the South with that of the North, there detaches itself, if nothing else, at least the fineness of spirit, the sentiment of life, the æsthetic sense of these peoples whom the misgovernment of centuries and the cruel and careless indifference of despotic rule had held in a state of misery and pitiful distress.

But notwithstanding all their poverty these people of the South have preserved, with the vivacity and adaptability of their genius and the largeness of their ideas, a poetic and joyful sense of life, a wise discretion in their material claims, a sensible balance between their needs and what is at their disposal; and added to this an exquisite sensibility before the wonders of nature, a certain refinement of movement even in their careless dress, which shows itself too in their little homes, in the conduct of their life in those sunny villages, and in their disposition of the day between work which is not excessive and repose which is less idleness, and has more in it of contemplation and thought than is often imagined.

And the house itself, in those districts which, while they have attained a certain comfort, have remained

almost immune from the contagion of the small shopkeeper and his ideas, reveals at its first sight the manner of thought and feeling of the persons who occupy it. At Capri, for instance, and along the coast of Amalfi, are to be found surprising examples of popular architecture which the Academy of the Brera does not condescend to study, and the school handbooks continue to ignore; while the "bourgeois" who have become rich, when they do not have recourse to the historic styles, go to seek for their "villini" (little villas) their models from without, in the cottages of England, the chalets of Switzerland, or ask for designs from the Secession of Vienna or from the art of Munich.

It is generally stated and believed that at Capri and in the peninsula of Sorrento the Greco-Roman tradition has been preserved better than elsewhere. As far as the house is concerned this idea is entirely inexact.

The house of old Roman times, as is well known, was divided into two parts, a front part where life was transacted in its outside relations, where clients were received and business transacted, and a part behind reserved exclusively for the really domestic side of life. But both these portions, joined together by means of great open hall, the "tablinum," consisted in practically open spaces or "cortili" (courtyards), the "atrium" and the "peristilium," around which were grouped the "cubicula" (bedrooms), the eating-rooms, the kitchens, the cellars; all small dark rooms, since they lived and worked for the most part in the open air, in the two open, well lighted and ventilated spaces, where the family life was concentrated.

The house had, in fact, no windows on the street. Without, there were only high, bare walls, pierced with the smallest number of apertures, these being themselves small in their dimensions and guarded with iron bars. The type of the house at Capri is just the reverse of this, and we shall pursue this interesting comparison in the next article.

(To be concluded.)

THE Porthcawl Council recently received a deputation from the Western Engineering Co., who have in view a scheme for the development of Porthcawl as a pleasure resort. The scheme involves the laying out of a new front and promenade, croquet lawns, tennis courts, etc., and it is estimated that over a course of years developments will be carried out costing about £1,000,000. The promoters claim that the scheme will ultimately make Porthcawl the finest seaside resort in Wales, and they seek preferential treatment in respect of rates, water supply, and lighting. The council, while not committing themselves to any definite proposal, decided to give the enterprise all the assistance they could.



## Architects and the Public they Serve.\*

I HAVE mustered up courage to give a paper in my native town, from which I have been exiled, believing that the privileged architects of Birmingham will not deal harshly with me for sins of omission or commission. As my experiences have been wholly without the walls of Mecca, my criticisms will not apply to any who dwell within the holy city. I propose to follow the *modus operandi* of a chemist, and, having described the nature of two elements, will then describe what happens when they enter into combination.

To begin with, let us consider the normal and customary outlook of the public in the matter of building, if possible divesting ourselves of ideas which are partly the result of our professional gravitation, partly ignorance and want of observation, and partly also the result of systematic and picturesque lying which has been carried out with assiduity for many years both by writers of architectural works and by those who are connected with the architectural Press. All writers on such subjects are agreed that the architect is little lower than the angels, and, like the angels, he never works for fees, but is a being swept with passionate enthusiasm for art, in whose service he would welcome martyrdom.

Looking backward on my own experiences before I was sentenced for life, I cannot truthfully aver that I had a deep and intense realisation of "beauty in structure." A cathedral interested me for an hour at a time, but I believe a theatre, dance, or other entertainment was really more of a pleasure to me. I had not the sense of discrimination which made me shudder among Victorian surroundings, though I remember feeling a reasonable interest in Aston Hall, and even warmer interest in a ruined Welsh castle. I might have entered the law, but had no particular avidity for working for stiff examinations, while the pursuit of architecture appealed to me as a pleasant outdoor life, in which I might be well paid for watching others working.

I allude to these personal matters because, though there are many who really have very strong initial proclivities and tastes which govern their choice of a calling, I believe that I am justified in assuming in my own case that I was a typical example of the general public at the age of sixteen, when I chose my future profession. My next step is to consider to what extent my original instincts relating to architecture would have been modified had I entered another calling.

The unknown has always attracted mankind, but the unknown does not interest mankind, because by investigation it becomes wholly or partially known, and the direction of one's labours very largely governs one's tastes and inclinations. I think I am therefore justified in assuming that, had I not had to work at architectural subjects, I should never have felt more than a casual interest in the subject, and this seems to me to be the attitude of the average man.

We are led to believe by enthusiastic writers that the ancient Greeks or the Florentines of the middle ages were keenly interested in matters of art and architecture, but have we any real data on which to base such assumptions? Craftsmanship was more specialised and more highly developed, wants were simpler, and the designer worked in a deep and narrow channel, as a result of which he worked with more conviction and force. The average man, if surrounded with beautiful things, accepts them; but, if surrounded with ugly ones, accepts them also if they serve his purpose. Do we really believe that if a Greek of the age of Phidias had been able to make a large income by cutting up his land and building cheap tenements on it that he would not have done so, or that, having realised the possibilities of building speculation, he would not have acted as we act to-day?

What we know of Japan confirms this view, because the Japanese have an art which, in its province, is un-

equalled, and yet, when brought into contact with the West, have shown themselves capable of erecting some of the worst and most tasteless buildings to be seen out of Germany, while we meet Japanese men and women who have nothing to learn from the West in tastelessness of costume. If art was a vital and national interest, would these things be possible, and do not facts prove that, though art is a beautiful growth, it is also easily uprooted and cannot be considered to be vital to the life of any community?

I refuse to believe that mankind in any age or any country has ever been saturated with a natural and instinctive love of beauty *per se*, but it is clear to me that circumstances in certain ages and epochs have been exceptionally favourable to the production of craftsmen who have concentrated attention on their work, to the great gain of the world.

Modern man is brought into contact with building in various ways. He has to live somewhere, and usually at some time or other he has to pay for the accommodation he needs. He is either another man's tenant or he buys and builds for himself.

If a tenant, his aim is a simple and well-defined one. He obtains the necessary accommodation at the cheapest possible rate, he forces his landlord to make good any shortcomings if he can possibly do so, and whether he succeeds in this or not he abuses his landlord to sympathetic audiences. The landlord is, and always will be, the villain of the piece.

If he builds, the process is more complicated. We will assume, for decency's sake, that he goes to an architect. He defines his wants, which we may say would cost something like £5,000 if economically carried out. His architect, like all architects, is an amiable and accommodating man, and works from early morning to dewy eve until he has produced something which bears a picturesque and striking resemblance to the original proposition. The architect's difficulties are real ones, for his client has told him he must on no account exceed an expenditure of £2,000, but he belongs to a race which is always attempting the impossible. Estimates are at length obtained, the lowest of which comes out at £3,500, and an animated and interesting discussion follows, which results in the client accepting a further compromise which reduces the cost of the house to £2,800. The client for the rest of his life abuses the architect as an unpractical man, and, if of a humane and charitable disposition, describes him as one who has greatly erred but has been forgiven. At one time the client was a white-hot enthusiast on points of art, but such enthusiasm is usually checked by the presentation of the builder's account. If it lingers afterwards, the architect has discovered that *rara avis* the perfect client whom some think is extinct with the dodo and the great auk. But there is another aspect in which the average man may be interested in building—as a means of speculation. Here we must adopt ordinary business formulæ and tests. If the architect, by developing a site or erecting a building, can obtain for his client a good return on his outlay, he stands in an impregnable position. His fees will be paid willingly, he will secure further lucrative employment, and may even rank with those who, by the invention of an improved corset, a food substitute, or a fountain-pen, are among the great of the earth. His name will be honoured in the town which gave him birth, and he need not avoid his banker.

Of public buildings and the interest they involve I need say little. The public likes to see great and costly buildings if they have not to pay for them, and, if they have, the ratepayer if generous feels that the whole burden does not fall on his shoulders.

So much for one agent of the equation, we have now to consider the architect.

The architect is usually a man who, after having been for years immersed in the toils of a specialised training, loses touch with the average standpoint of his fellows.

He studies the works of the past with such enthusiasm that he loses his sense of the relation of actual things in the lives of his fellows. He often becomes what we may

\* A paper read before the Birmingham Architectural Association by H. W. Wills.



call a slave of the drawing-board, and his endeavour in a great number of cases may be stated as being to spend the money of others in accomplishing his own aims. This, oddly enough, does not always conduce to his worldly success, and he makes cynical remarks about the Philistines. He is rather in the position of the Catholics in England in the reigns of Elizabeth and James, suspected of owning a dual allegiance, first, to those who employ and pay him, and, secondly, to the cause of architecture. The public believe that the second allegiance sways him more strongly than the first.

There are many exceptions to the man whose tendencies I have crudely indicated, but I believe I have indicated the most numerous section contained within our ranks.

It is this dual allegiance which is, in my view, the most insidious of the causes which sometimes lead to our undoing, and I believe that most of us do not sufficiently realise that we are necessarily swayed by two contradictory and opposed interests—that of our architectural predilections, which I believe the public has scant sympathy and respect for, and that incumbent on our position as agents to obtain for our clients in the most direct and economical manner what they really want. Our clients may admire versatility in the abstract, but they sometimes feel they are dealing with Dr. Jekyll and Mr. Hyde. I will leave you to allocate the titles.

It is easy to test the position of the public in these matters. I have frequently felt annoyed because a client has not accepted something or other I have been keen on myself, and have imagined the positions reversed, with the result that if I were building for myself I have been forced to admit I should take my client's point of view.

I have frequently, also at a committee meeting, put a scheme before clients only to find that they supported or opposed propositions for quite other reasons than any I should have imagined, which has been another indication to me of how far I have strayed from an understanding of the average point of view of the public, and I believe we cannot estimate the value of understanding what it is the public really wants at too high a figure.

I believe I have made a fair statement of the nature of my two elements, and have also demonstrated that without some changes of method they are unlikely when brought into combination to provide what we all want—constant and lucrative employment—and here I have a suggestion to make.

If our millennium were attained every building in the country would be the outcome of an architect's skill, which is not the case at present.

What will be the end of the housing policy of the Government no man can say, but I believe we shall see a reversion to the old system of private enterprise, not because the Government wish it, but because the finances of no State could meet the cost of the alternative.

But the majority of middle-class houses, like the whole of the houses of the working classes, have been built for them and not by them, for reasons which I define as being the wish to save trouble and to avoid responsibility. The operation of these two factors has led to such buildings being erected by speculators of various types, a few of whom obtain a thin veneer of architectural skill, such as is afforded by the employment of some badly-trained and poorly-paid hack draughtsman.

To do what I believe should be done it would be necessary for some of the men now starting in practice to turn their backs on ordinary methods and seek partnerships with some builder in a like position, and each contributing an equal share of the necessary capital to start building to meet the average wants of the community, which I define as being houses to live in and commercial premises to do business in. The architect would receive his payment not in fees, but in a share of the difference between the cost of production and the price obtained.

In doing this we should but be following the procedure of engineers whose ranks include both consultants and executive firms, and whose status is not diminished by the fact.

Consider what this would mean—the architect in such a combination would not have to consider the wants of an individual, but that of a class, he would not have to check and examine builders' accounts or to treat the builder as an opposed element. The architect would be building for himself and would eliminate anything for which he felt he would not obtain a monetary equivalent, which, put in plain language, means that he would have no inducement to provide what the public does not really appreciate. If we define architecture as the expression of the life and wants of an epoch in building, we should thus get nearer living work, for the provision of what is not appreciated or liked can never advance the interests or architectural progress, but produce the eccentricities which we unsparingly condemn in the works of others. Finally, builder and architect would learn to understand the nature of each other's work better, and the system, if efficiently carried out, would redeem the features of whole miles of the land.

The experiment has, of course, been partially tried, but very tentatively it is essential that builder and architect should be in a position of financial equality and authority or the results would be unsatisfactory, and it is necessary that both should be trained and educated men.

What we are up against as it is is a force which I believe will grow stronger with time—the disinclination of the average man to incur responsibilities and give time to subjects which do not greatly interest him; he infinitely prefers to be able to buy outright or rent what he can see, and we have by our limited methods only tilled one corner of a field when the whole of it might be included in our domain. I would have the architect occupy the position of the main course of the feast, whereas now he is too frequently a mere *hors d'œuvre*.

But for those of us who are architects in the modern and restricted sense, that is, agents for our employers, I say beware of the undoubted influence of the duality of aim, of which most of us must be conscious, and do not let us be swayed too greatly by practical pictures of our calling in carrying out which we always have to concern ourselves with intimate questions of money, space, and accommodation, points on which the public have very definite views.

I have spoken somewhat crudely in your family circle of points which are usually glossed over in print, in which it is customary to speak of the education of the public in matters of architecture as if it were a feasible and hopeful proposition, which I do not believe it is or has ever been.

It is also a time-honoured custom to assume that no architect works for a living, but is simply attracted by a burning enthusiasm for art and the progress of humanity, another little legend which may not be entirely substantiated by facts.

## Land for Wandsworth Housing.

MR. HOWARD MARTIN, Official Arbitrator under the Acquisition of Land (Assessment of Compensation) Act, 1919, has issued his award in a claim by the Trustees of the late Sir Charles Seely, Bart., against the Minister of Health, in respect of the compulsory acquisition of nearly forty-three acres of freehold building land on the Furzedown Estate, Wandsworth, S.W., for housing purposes. The trustees are Sir Charles Hilton Seely, Bart., General the Right Hon. John Bernard Seely, and Mr. Albert Edward Fowle Jourdain. The award is in the following terms: "That the Acquiring Authority is to pay the claimants the sum of £30,908, and I order both parties to pay their own costs." At the hearing of the claim, Mr. A. L. Ryde, Surveyor, of Westminster, on behalf of the claimants, submitted a valuation amounting to £53,157. On behalf of the Minister of Health, Mr. F. E. Sargent, district valuer of the Inland Revenue, submitted a valuation of £24,264. A report of the hearing appeared in THE ARCHITECT for December 17, 1920.



## Architects' Benevolent Society.

## Recent Appeal.

## FIRST LIST OF NEW SUBSCRIBERS, INCREASED SUBSCRIPTIONS, AND DONATIONS.

NAME	New Sub.	Increased Sub.	Donations.	NAME	New Sub.	Increased Sub.	Donations.
£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Abercrombie, T. Graham (Paisley) ...	1 1 0	—	—	Dawson, H. H. (Barking) ...	1 1 0	—	—
Addenbroke, Lt.-Col. J. S. (Edin.) ...	1 1 0	—	1 1 0	Dawson, W. C. (London) ...	1 1 0	—	—
Agutter, J. C. (London) ...	1 1 0	—	—	de LaFontaine, H. P. Cart (London) ...	1 1 0	—	—
Alexander, S. G. (Scotland) ...	1 1 0	—	—	Deane & Braddell, Messrs. (London) ...	1 1 0	—	—
Anderson, J. C. (London) ...	1 1 0	—	1 1 0	Denning, C. F. W. (Bristol) ...	—	—	3 3 0
Angell, R. (London) ...	1 1 0	—	—	Dennis, E. D. (Bla-krool) ...	1 1 0	—	—
Anonymous ...	—	—	1 0 0	Derry, D. C. L. (London) ...	1 1 0	—	—
Arlidge, W. (London) ...	2 2 0	—	—	Dixon, H. S. (N. Shields) ...	1 1 0	—	—
Armstrong, C. T. (Bexhill) ...	—	—	2 2 0	Doe, H. W. (London) ...	1 1 0	—	—
Atkinson, G. T. (Leeds) ...	5 5 0	—	—	Donald, H. W. (Natal) ...	1 1 0	—	—
Atkinson, H. (London) ...	1 1 0	—	—	Dossor, J. M. (Hull) ...	1 1 0	—	—
Atkinson, T. D. (Winchester) ...	—	2 2 0	5 5 0	Dryden, F. M. (Newcastle) ...	1 1 0	—	—
Aumonier, W. (London) ...	1 1 0	—	—	Duncanson, E. F. (London) ...	1 1 0	—	—
A.R.I.B.A. (London) ...	1 1 0	—	—	Dunn, J. G. (Cambuslang) ...	1 1 0	—	—
Badcock, H. (Croydon) ...	—	—	2 0 0	Dunn, J. B. (Edinburgh) ...	—	—	1 1 0
Baguley, H. (Difton) ...	1 1 0	—	—	Edeson, C. W. Mansfield) ...	1 1 0	—	—
Bailey, W. H. (Hulme) ...	1 1 0	—	—	Ellis, G. (Worsley) ...	1 1 0	—	—
Baines, George & Son (London) ...	1 1 0	—	—	Ellwood, G. M. (London) ...	1 1 0	—	—
Barker Bradley, R. (Plymouth) ...	—	—	0 10 0	England, E. S. (Oldham) ...	0 10 0	—	—
Barker, H. W. (Bradford) ...	0 10 0	—	—	Epps, W. M. (London) ...	1 1 0	—	—
Barker & Hoyland (Manchester) ...	1 1 0	—	—	Fagg, A. H. (London) ...	—	—	1 1 0
Barrow, E. R. (London) ...	—	2 2 0	—	Fairhurst, H. S. (Manchester) ...	1 1 0	—	—
Barry, W. E. (Broadstone) ...	1 1 0	—	—	Favarger, H. (London) ...	2 2 0	—	—
Batchelor & Hicks (Dublin) ...	2 2 0	—	—	Fenty, F. T. (York) ...	1 1 0	—	—
Beard, J. S. (London) ...	1 1 0	—	—	Ferhaud, E. A. (London) ...	1 1 0	—	—
Beart Foss, J. H. (London) ...	1 1 0	—	—	Field, Horace (Woking) ...	—	—	1 1 0
Beavers, W. A. (Leeds) ...	1 1 0	—	—	Finchett, F. W. (Southport) ...	—	—	1 1 0
Belfrage, J. H. (London) ...	1 1 0	—	—	Fisher, F. J. (London) ...	1 1 0	—	—
Bell, M. J. (London) ...	1 1 0	—	—	Fitzsimons, N. (Belfast) ...	1 1 0	—	—
Benians, H. J. (Goudhurst) ...	1 1 0	—	—	Fleming, H. S. (London) ...	1 1 0	—	—
Bennett, T. P. (London) ...	1 1 0	—	—	Fletcher, H. M. (London) ...	5 5 0	—	—
Reswick, H. (Chester) ...	—	3 3 0	—	Flowers, H. H. (London) ...	—	—	1 1 0
Biddulph-Pinchard, C. H. (London) ...	1 1 0	—	—	Ford, C. (Reading) ...	1 1 0	—	—
Blacking, W. N. R. (Guildford) ...	1 1 0	—	—	Forrest, G. T. (London) ...	1 1 0	—	—
Blatherwick, G. H. (Nottingham) ...	1 1 0	—	—	Forsyth & Maule (London) ...	1 1 0	—	3 3 0
Blomfield, A. C. (London) ...	2 2 0	—	—	Foss, J. H. Beart (London) ...	1 1 0	—	—
Bluhm, Q. Mangnall (S. Anne's-on-Sea) ...	1 1 0	—	—	Foster, W. T. (London) ...	1 1 0	—	—
Boddington, H. (London) ...	—	—	1 1 0	Frampton, R.A., Sir George (London) ...	3 3 0	—	—
Bond, A. G. (London) ...	—	1 1 0	—	Franklin, D. M. (London) ...	1 1 0	—	—
Botterill, A. B. (Bristol) ...	1 1 0	—	—	Fraser, G. (Liverpool) ...	1 1 0	—	—
Bowles A. R. (Folkestone) ...	1 1 0	—	—	Fraser, P. M. (London) ...	1 1 0	—	—
Briggs, J. (London) ...	1 1 0	—	—	Frere, E. C. (London) ...	1 1 0	—	—
Briggs, J. P. (London) ...	1 1 0	—	—	Fry, P. G. (Weston-super-Mare) ...	1 1 0	—	—
Brooklesby, J. S. (Merton) ...	1 1 0	—	—	Fulton, J. B. (Glasgow) ...	1 1 0	—	—
Brooks, W. E. (Croydon) ...	1 1 0	—	—	Gamble, H. G. (Lincoln) (two years) ...	2 2 0	—	1 1 0
Brown, H. M. (Wolverhampton) ...	1 1 0	—	—	Garlick, F. J. (London) ...	1 1 0	—	—
Brown, P. (Bridlington) ...	1 1 0	—	—	Gaskell, P. (Hull) ...	1 1 0	—	—
Brown, W. Talbot (Wellingborough) ...	1 1 0	—	—	Gaymer, B. P. (North Walsham) ...	1 1 0	—	—
Bullough, E. (Cambridge) ...	2 2 0	—	—	Gilbert, W. (Birmingham) (two years) ...	2 2 0	—	—
Bulmer, F. H. (London) ...	0 10 6	—	—	Gilbert, W. (London) ...	1 1 0	—	—
Butterworth, R. H. (Mildford) ...	2 2 0	—	—	Gilman, E. F. ...	1 1 0	—	—
Burdett Ward, F. (Wisbech) ...	—	—	1 0 0	Goddard, H. J. (Newton Harcourt) ...	1 1 0	—	—
Burleigh, H. (Hastings) ...	1 1 0	—	—	Goodsir, J. P. (Wallington) ...	1 1 0	—	—
Burnett, A. S. & Sons (Southampton) ...	1 1 0	—	—	Goslett, H. (London) ...	—	—	1 1 0
Burrage, C. (London) ...	1 1 0	—	—	Gray, A. (Hertford) ...	1 1 0	—	1 1 0
Burrows, H. W. (London) ...	2 2 0	—	—	Grazebrook, T. (Stourbridge) ...	—	—	1 0 0
Burrows, W. J. (London) ...	1 1 0	—	—	Green, Mowbray A. (Bath) ...	—	—	0 10 6
Cackett, J. T. (Newcastle) ...	2 2 0	—	10 10 0	Grundy, J. W. (Ulverston) ...	1 1 0	—	—
Cairns, J. W. (Edinburgh) ...	1 1 0	—	—	Guntton, J. (London) ...	1 1 0	—	—
Cameron, K. (Cheshire) ...	1 1 0	—	—	Guntton, W. H. (London) ...	1 1 0	—	—
Campbell, S. H. (London) ...	1 1 0	—	—	Gurney, A. E. (London) ...	1 1 0	—	—
Capon, F. Sizer (London) ...	1 1 0	—	—	Guthrie, L. R. (London) ...	1 1 0	—	—
Capper, G. R. (London) ...	1 1 0	—	—	Haines, H. Bedford) ...	1 1 0	—	—
Cardo, G. (London) ...	2 2 0	—	—	Hall, Austen (H) (London) ...	5 0 0	—	—
Carey, R. W. (London) ...	1 1 0	—	—	Hall, A. W. (London) ...	1 1 0	—	—
Carruthers, J. (Glasgow) ...	1 1 0	—	—	Hall, E. S. (London) ...	2 2 0	2 2 0	—
Caunell, E. (London) ...	1 1 0	—	—	Hall & Fenton (Sheffield) ...	—	—	2 2 0
Chambers, E. A. (London) ...	1 1 0	—	—	Hanton, P. K. (London) ...	1 1 0	—	—
Chancellor, F. G. (London) ...	1 1 0	—	—	Hardcastle, F. H. A. (London) ...	1 1 0	—	—
Chatterton, F. (London) ...	1 1 0	—	—	Hardy, M. (Dorchester) ...	1 1 0	—	—
Cheney, H. W. (London) ...	1 1 0	—	—	Harild, F. (Totnes) ...	1 1 0	—	—
Cherry, H. S. (High Wylyn) ...	1 1 0	—	—	Harris, E. Vincent (London) ...	3 3 0	—	—
Chilton, E. A. (Uckfield) ...	1 1 0	—	—	Harris & Hobson, Messrs. (Liverpool) ...	—	—	2 2 0
Chorley, R. S. (Leeds) ...	1 1 0	—	—	Harrison, N. W. (Oxford) ...	1 1 0	—	—
Clark, D. W. (Colchester) ...	1 1 0	—	—	Hart, E. J. (Capt.) (Manchester) ...	1 1 0	—	—
Clark, J. P. (Wednesbury) ...	1 1 0	—	—	Harvey, W. A. (Birmingham) ...	1 1 0	—	—
Clough, H. K. (Rochdale) ...	1 1 0	—	—	Hawkes, H. C. (Birmingham) ...	1 1 0	—	—
Coad, P. (Bromley) ...	—	1 1 0	—	Hawkins, P. W. (London) ...	1 1 0	—	—
Cobb, E. F. (Rochester) ...	—	—	—	Haxton, A. D. (Leven) ...	0 10 6	—	—
Cole, J. G. (London) ...	—	—	—	Hays, J. Wilson (Wingate, Durham) ...	1 1 0	—	—
Collins, C. D. (London) ...	1 1 0	—	—	Hayward, A. B. (London) ...	2 2 0	—	—
Collins, E. S. (London) ...	1 1 0	—	—	Haywood, W. (Birmingham) ...	1 1 0	—	—
Collinson, G. F. (London) ...	—	—	3 3 0	Hedderwick, D. B. (London) ...	1 1 0	—	—
Collis, H. (London) ...	1 1 0	—	—	Helme & Corbett (London) ...	1 1 0	—	—
Conder, A. (London) ...	1 1 0	—	—	Henry, T. W. (Belfast) ...	1 1 0	—	—
Cook, F. P. (Mansfield) ...	1 1 0	—	—	Hett, L. Keir (London) ...	1 1 0	—	—
Cooksey, A. W. (London) ...	1 1 0	—	—	Hewitt, A. S. (St. Yarmouth) ...	—	—	1 1 0
Cope, G. A. (Leicester) ...	1 1 0	—	—	Hibbert, A. (London) ...	1 1 0	—	—
Corderoy, G. (London) ...	1 1 0	—	—	Hick, E. M. (Cheam) ...	1 1 0	—	—
Cotton, J. (Birmingham) ...	—	—	1 1 0	Hider, E. J. W. (London) ...	1 1 0	—	—
Courtney, H. G. (Winchester) ...	1 1 0	—	—	Hignett, C. H. (Letchworth) ...	1 1 0	—	—
Cowell, H. (Newquay) ...	1 1 0	—	—	Horns, F. R. (London) ...	1 1 0	—	—
Cox, R. L. (London) ...	1 1 0	—	—	Hobday, W. Herbert (London) ...	1 1 0	—	—
Craze, R. B. (London) ...	1 1 0	—	—	Hodgson, A. N. W. (Windermere) ...	1 1 0	—	—
Crickmer & Foxley, Messrs. (London) ...	1 1 0	—	—	Holman, A. R. (Exeter) ...	—	—	1 1 0
Croft, C. (Northampton) ...	1 1 0	—	—	Honeyman, H. L. (Newcastle) (two years) ...	2 2 0	—	—
Crosbie, L. S. (London) ...	1 1 0	—	—	Honor, T. (Newbury) ...	1 1 0	—	—
Crothall, H. G. (London) ...	1 1 0	—	2 2 0	Hopkins, W. B. & Sons (Berkhamsted) ...	—	—	2 2 0
Crowley, W. St. Leger (Wisbech) ...	—	—	1 1 0	Horner, P. Morley (London) ...	1 0 0	—	—
Crump, T. Graham (Croydon) ...	1 1 0	—	—	Hornblower, G. (London) ...	2 2 0	—	—
Cubitt, H. (London) ...	1 1 0	—	—	Horsburgh, W. F. (Liverpool) ...	1 1 0	—	—
Culley, N. (Huddersfield) ...	1 1 0	—	—	Horsfall, C. F. L. (Halifax) ...	1 1 0	—	—
Cummings, P. (Manchester) ...	1 1 0	—	—	Houlton, E. B. (Chesterfield) ...	1 1 0	—	—
Cunliffe, R. H. (Fleetwood) ...	1 1 0	—	—	Howgate, W. Church (Richmond) ...	1 1 0	—	—
Currey, H. W. (London) ...	1 1 0	—	2 2 0	Hubbard, G. E. (Newnham-on-Severn) ...	1 1 0	—	—
Curtis, S. Carey (Guernsey) ...	1 1 0	—	—	Hubbard, P. W. (London) ...	1 1 0	—	—
Dakin, E. A. (Loughborough) ...	0 10 6	—	—	Hubbard, W. H. Guest (Luton) ...	1 1 0	—	—
Dales, S. P. (London) ...	1 1 0	—	—	Humphrey, F. J. (Surbiton) ...	—	—	1 1 0
Dane, H. (Dover) ...	1 1 0	—	—	Hunt, Messrs. W. & E. A. (London) ...	—	—	5 5 0
Darbyshire, T. S. (London) ...	0 10 6	—	—	Hunt, W. G. (London) ...	1 1 0	—	—
Davies, W. P. (Birmingham) ...	1 1 0	—	—	Huntly-Gordon, H. (London) ...	—	—	1 1 0
Davies, R. W. (Newtown, Montgomeryshire) ...	1 1 0	—	—				
Davison, T. R. (Woldingham) ...	1 1 0	—	—				
Dawson, C. J. (Barking) ...	—	2 2 0	—				



# CONCRETE "KING" PLASTER BLOCKS SLABS

## WALLS PARTITIONS ROOFS

### FIBROUS PLASTER CEILING SLABS

*Ferro-Concrete and Glass Constructions*

## "FERRO GLASS" PAVEMENT LIGHTS

## "KING" CONCRETE GLAZING BARS

### J. A. KING & CO.

181, QUEEN VICTORIA ST., LONDON, E.C., and  
BRITANNIA BUILDINGS, LEEDS.  
Tel: City 2213 and Cent. 773, and Leeds 22712.

## Classic Radiator Characteristics

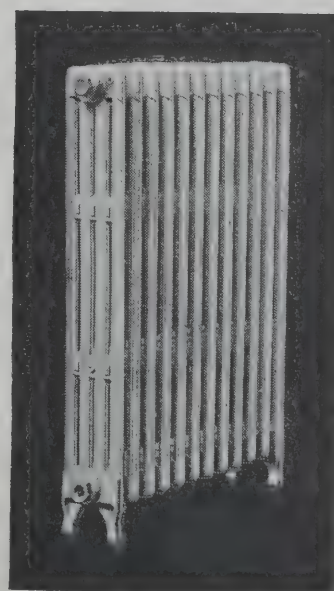
### 1. Beauty of Design.

The Ideal Classic Radiator makes a special appeal to that discriminating taste which demands comfort and elegance in the home. Its chaste beauty and well-balanced series of slender columns, with their simple fluting, make a harmonious whole, graceful in outline and inconspicuous.

### IDEAL CLASSIC RADIATORS

The Ideal Classic Radiator, however, is distinguished not only by beauty of design but also by important practical advantages.

Write for further particulars. Inspection of our Showrooms invited.



## NATIONAL RADIATOR COMPANY LIMITED.

Offices, Showrooms & Works : HULL, Yorks.

Telephone : Central 4220. Telegrams : "Radiators, Hull."

London Showrooms : 439 & 441 Oxford Street, W.1.

Telephone : Mayfair 2153. Telegrams : "Liableness, London."

Agents in Great Britain carrying stocks of "Ideal" Radiators and "Ideal" Boilers:

Baxendale & Co. Ltd., Miller Street Works, Manchester.

William Macleod & Co., 60-64 Robertson Street, Glasgow.



## Scottish Building Guilds Conference.

THE first conference of Scottish Guilds was held in Glasgow on Saturday, the 22nd inst. Mr. S. G. Hobson, secretary of the National Building Guild, presided. There were forty delegates from different centres throughout Scotland. Mr. Hobson, in his opening remarks, spoke of his recent successful fight with Dr. Addison on the question of allowing the Guilds to get on with housing. In regard to "continuous pay," he said there was a big struggle before the workers. The Building Guild would fight for this very strenuously, not only for themselves, but for all workers in all industries. After reports had been given by various delegates, two resolutions were passed, one agreeing that a Regional Council be formed in Scotland to co-ordinate the work, with Mr. John Winning as regional officer, the other in the following terms:—"That, having regard to the attack made upon the Building Guild by the Ministry of Health and the master builders, this conference of Scottish Building Guilds, having before it the result of Guild building in England, particularly in South Wales, Lancashire, and Yorkshire, where the Building Guild is erecting artisan houses at £150 per house cheaper than the master builders in the same localities, and realising that this result is in part due to the security of employment obtained by the system of 'continuous pay,' urges upon the Government the necessity of recognising this continuous pay as an economic charge upon the building, and in no sense as remuneration."

## Competition News.

Mr. Herbert T. Buckland, F.R.I.B.A., who was appointed assessor in connection with the competition for designs for a High School for Girls to be erected in Newton Road, Burton-on-Trent, has awarded the first prize of 250 guineas to Messrs. W. and T. R. Milburn, Sunderland; the second prize, carrying a premium of 150 guineas, to Messrs. Rees and Holt, Liverpool; and the third prize, 100 guineas, to Mr. Edward T. Allcock, Liverpool.

The Llandudno War Memorial Committee have, on the award of Mr. G. A. Humphreys, the assessor, selected the design of Mr. S. Colwyn Foulkes, of Colwyn Bay, for the cenotaph in memory of local men who fell during the war, which is to be erected on the site at the bottom of Mostyn Street. Over fifty drawings were sent in for competition, from all parts of the kingdom. A second prize of £15 was awarded to Mr. H. S. Davies.

The Burgh of Rothesay War Memorial Committee invite designs for a memorial to hold about 200 names and to cost not more than £2,000. The memorial will take the form of a symbolical figure holding aloft a cross, to be erected of either granite with bronze figure or white marble with white marble figure, and alternative designs should be lodged. The site will be on the Esplanade. The successful competitor will be entrusted with the work; the second best will receive a prize of £15, the third a prize of £10, and the fourth a prize of £5. The Committee will be advised by an architectural assessor. Drawings and estimates should be sent not later than February 19 to Mr. Robert D. Whyte, Town Clerk, Rothesay, from whom further particulars may be had.

THE electrical engineer to the Southend Town Council recommends extensions of plant, which should be available by the summer of 1925, estimated to cost £300,000.

THE Falkirk Dean of Guild Court have granted an application by Falkirk Iron Co. for warrant to erect moulding and dressing shops at their Castlelaurie Works, situated at Bankside, Falkirk. The estimated cost of the proposed erection was given at £8,000.

At the last meeting of the Administrative Committee of the National Union of Manufacturers (Inc.), Mr. George Terrell, M.P., in the chair, the following resolution was unanimously carried, on the motion of Mr. T. Shepherd (Midland Council): "That in view of the attitude of the Builders' Union in connection with the employment of ex-Service men, this Committee desires to record a protest against the proposed subsidy and guarantee which has been offered by the Government as establishing an undesirable precedent which might be applied to other trades; and, further, that it may involve the nation in unnecessary financial liabilities at a time when national economy is of the utmost public importance."

## Forthcoming Events.

*Saturday, January 29.*—Society of Architects.—Visit to Painter Stainers' Hall, 9 Little Trinity Street, E.C. 3 p.m.

—International College of Chromatics.—Meeting at Caxton Hall, Westminster, S.W. Lecture by Mr. E. Kay Robinson, F.Z.S., entitled "Colour as the Expression of Life." 3.30 p.m.

*Monday, January 31.*—Royal Institute of British Architects.—Meeting at 9 Conduit Street, W. President's Address to Students. Criticism of Drawings by Mr. H. P. Burke Downing, F.S.A., F.R.I.B.A. Presentation of Prizes and Studentships. 8.30 p.m.

*Tuesday, February 1.*—Institution of Civil Engineers.—Meeting at Great George Street, Westminster, S.W. Lecture by Brevet-Major G. le Q. Martel, D.S.O., M.C., R.E., entitled "Bridging in the Field." 5.30 p.m.

*Wednesday, February 2.*—Glasgow Institute of Architects.—Meeting at 39 Elmbank Crescent. Lecture by Mr. Archibald Barr, LL.D., entitled "Arches." 8 p.m.

—Royal Archaeological Institute.—Meeting in the apartments of the Society of Antiquaries, Burlington House, W. Lecture by Professor F. M. Simpson entitled "Santa Sophia and the Mosques at Constantinople and Brusa." 4.30 p.m.

*Thursday, February 3.*—Architects' and Surveyors' Assistants' Professional Union.—Grand rally at Caxton Hall, Westminster, S.W., in support of the Union's Minimum Wage Proposals. 6.15 p.m.

*Friday, February 4.*—Town Planning Institute.—Meeting at 12 Great George Street, Westminster, S.W. Lecture by Sir H. Trustram Eve, K.B.E., F.S.I., entitled "The Agricultural Belts of Garden Cities." 6 p.m.

*Saturday, February 5.*—Architectural Association.—Visit to St. James's Palace.

## General.

At the Bedwas Council meeting on Monday last the clerk reported that sanction of the tender of Mr. T. F. Howells to erect 144 houses at Bedwas at a cost of £142,993 had been received. He applied to the Public Works Loan Board for the necessary money.

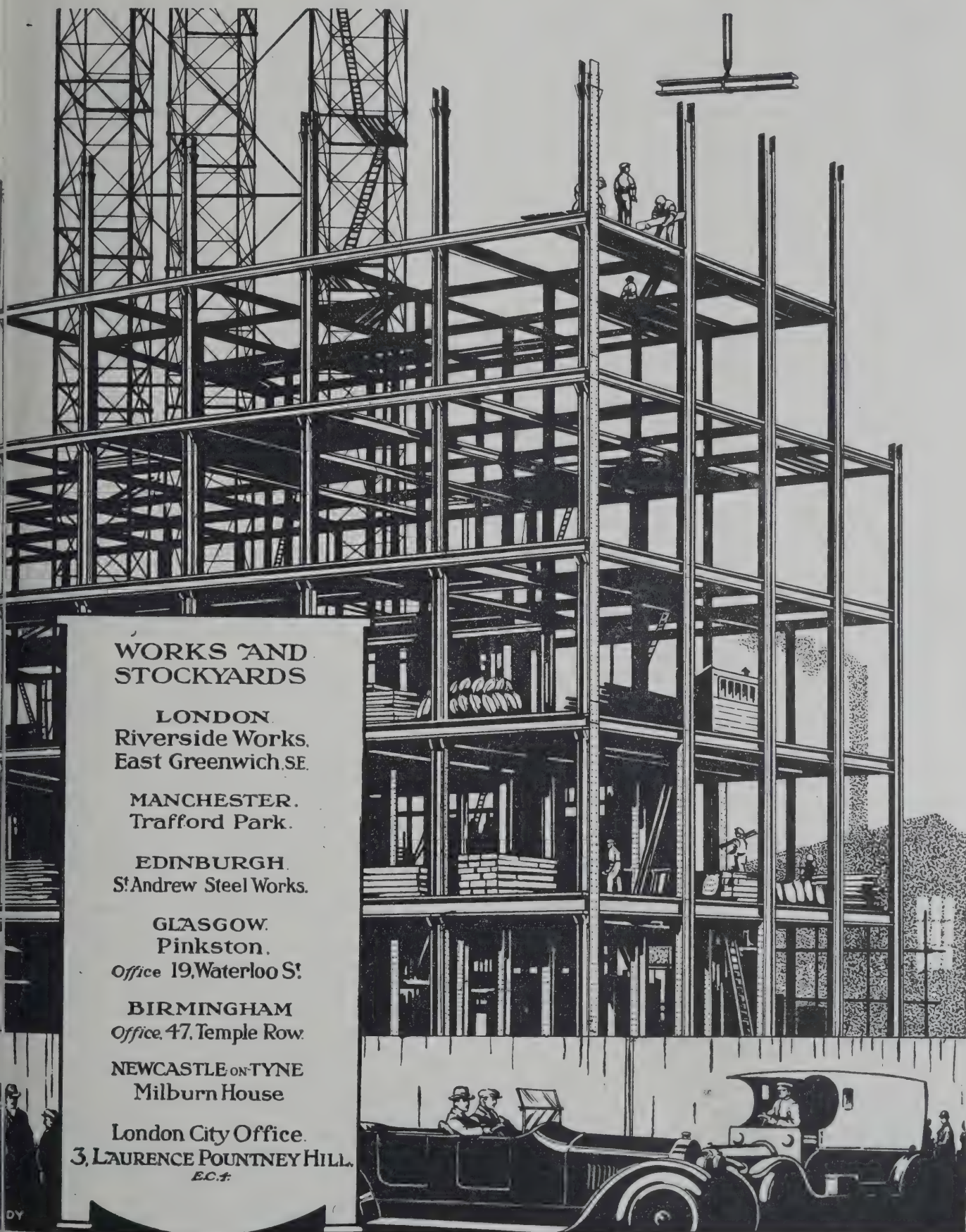
HEAVY losses having been caused to thrifty persons in all classes of the community by the failure of so-called "Banks," and also by investments in unsound, and even fraudulent, concerns, it seems desirable to point out that Lloyds Bank, Ltd., places its service, with its wide-spread system of branches, at the disposal of the public for the deposit of savings, however small. The Bank has for many years had a large Savings Bank Department in the South West of England, and the same facilities are now available throughout the whole of its system. Lloyds Bank is one of the foremost institutions of its kind in the world. It has over 1,500 offices in England and Wales; its subscribed capital is £70,688,980, its paid-up capital £14,137,796, its reserve fund £10,000,000, while its deposits amount to over £325,000,000.

THE Westminster City Council and the City of Westminster Union are about to let for building the site of the Poland Street Workhouse. It has an area of 47,880 feet with frontages to two streets, and is placed a little north of Piccadilly Circus within two hundred yards of Regent Street and Oxford Street. The cloth market and the soft-goods trade have made their homes in this district. Many firms have migrated here from the City to bring their stocks and samples closer to their West End customers. Office and showrooms accommodation is notoriously deficient in this quarter, and capital will easily flow in the direction of sound investment for which a mammoth store or a big trade block would return satisfactory interest. The letting will be by auction on a term for eighty years, and will take place on March 31 at Knight, Frank & Rutley's rooms in Hanover Square.

THE annual meeting of the Church Crafts League was held in the Church House on the 19th inst., Professor Selwyn Image in the chair. An address was given by the Rev. W. H. Draper, Master of the Temple, on the Custody of Churches and Church Treasures. The suggestion made by Sir Alfred Mond that this custody might be taken over by the Office of Works was strongly deprecated, and it was unanimously resolved:—"That the machinery of the Church, if properly directed and developed, is amply sufficient for the safeguarding of ecclesiastical fabrics and their contents, and that the extension of the authority of the State over the cathedrals and parish churches should be opposed. The resolution also asked the Bishops to bring the matter before the Standing Committees of the Diocesan Conferences in the spring."



# REDPATH BROWN & CO., LTD. CONSTRUCTIONAL ENGINEERS



## WORKS AND STOCKYARDS

LONDON.  
Riverside Works,  
East Greenwich, S.E.

MANCHESTER.  
Trafford Park.

EDINBURGH.  
St. Andrew Steel Works.

GLASGOW.  
Pinkston.  
Office 19, Waterloo St.

BIRMINGHAM  
Office, 47, Temple Row.

NEWCASTLE-ON-TYNE  
Milburn House

London City Office.  
3, LAURENCE POUNTNEY HILL,  
E.C.4.



## New Catalogues.

THE Vaughan Crane Co., Ltd., Openshaw, Manchester, have sent us a copy of their new booklet (No. 8), which is not strictly a catalogue but an illustrated booklet, showing their various types of cranes. It is intended to pique curiosity and to prompt a demand either for a catalogue section of the crane which interests the reader or for a complete catalogue dealing with the whole range of their manufactures. A wide range of hand and electric cranes are included. The company are on the lists of the Admiralty, War Office, Crown Agents for the Colonies, India Office, &c.

THE Moler Fireproof Brick and Partition Co., Ltd. (which is associated with Vickers, Ltd.), have been favoured with a large contract from the Ministry of Health for their No. 6A Partition Slabs to be used in connection with State-aided housing schemes. The quantity ordered amounts to 2½ millions, and already they have despatched the first two consignments of some 500 tons to Leith and Aberdeen. The company quote in their catalogue the opinion of an eminent architect, who declared the material to be "far superior to any that has so far been submitted to me or that I have been able to use in buildings in the past." Moler partitions were used in the construction of Dulwich Infirmary, Marylebone Workhouse, and other large buildings. According to the catalogue, No. 6A slabs weigh 2 tons 17 cwt. per 1,000; a partition 2½ inches in thickness has a weight of 83 lb. and requires 13 bricks per yd. super. The slabs are made in suitable sizes to enable them to be easily erected and fixed by one man; they afford good holding for nails and screws, and are made either keyed for plastering or smooth both sides.

THE National Radiator Co., Ltd., 439 and 441 Oxford Street, W., and Hull, have issued a single-sheet catalogue inset relating to their latest pattern of radiator called the "Ideal Classic" Four Column. This is the first of a new series embodying a considerable advance in radiator construction. The internal area of the individual columns is only about one-fourth that of other radiators, so that the quantity of water or steam required is reduced to about one-half. Owing to the reduced size of the columns and the symmetrical spacing, 15 per cent. more heating surface can be obtained in a given floor area than with an ordinary single column radiator of equal height, so that the "Ideal Classic" radiator only occupies two-thirds of the space required for other patterns. This new type seems specially well adapted for good-class residential work. We have also received a leaflet giving particulars of the "Ideal" wall brackets for radiators and "Ideal" adjustable radiator saddle. The adjustable wall bracket is an improved pattern providing adjustment up to 1 inch, both horizontally and vertically and obviating the necessity of both bottom brackets and top stays. The "Ideal" radiator saddle is intended primarily for use in conjunction with wood radiator tops which are liable to shrink, as it permits a horizontal adjustment up to ½ inch.

"THE Modern Burglar" is so interesting and well-produced a book that we have very great hesitation in classing it as a trade catalogue. But, after all, trade even in the twentieth century is not necessarily shorn of all its romance. The business of a safe maker must possess its full share, for in its very essence it is a challenge to unknown opponents without any restriction in choice of weapon. Messrs. the Chatwood Safe Co., Ltd., have for more than sixty years been pitting their skill against that of the world's safe-breakers. And they can still boldly claim that "the only form of defence upon which the custodian of treasure may justifiably place absolute reliance is that afforded by the qualities represented in the Chatwood Safe." Many incidents are narrated and illustrated in the fascinating pages of "The Modern Burglar" which completely justify this not inconsiderable boast. In 1858, when Mr. Samuel Chatwood founded the firm in Bolton, the efficiency of a safe as protection against fire and man was distinctly low. In 1921 a Chatwood safe defies both enemies; it has outdistanced the scientific cracksmen, armed though he be with the latest oxy-acetylene blow-pipe and every known tool. But it is most important to remember that there is no magic in the word Safe, whose comfortable, reassuring sound has too often given a false feeling of security. The resources of science and human efficiency are shared alike by the burglar and his traditional enemy—the maker of safes and strong rooms; the latter must "keep his light a-shining a little ahead of the rest." Messrs. Chatwood's history of this sixty years' war is of absorbing interest. The book is not merely an advertisement of Chatwood Safes, but is, in a narrow compass, a comprehensive description of modern

methods of protecting valuables against fire, fall, and burglary, showing how scientific principles are applied in the construction of small safes for private users equally with the construction of vaults and strong rooms for large corporations.

## "Prufitol" and a Sprayer.

BUILDING PRODUCTS, LTD., 44-46 King's Road, Sloane Square, S.W., arranged a demonstration on the Chelsea Arts Club premises last week of "Prufitol"—the liquid surface waterproofer for brick and stone work. "Prufitol" has been on the market about six years. This liquid consists of a petroleum base and wax which soaks into the brick or stone work for about ¼ inch in such a fashion that it renders the surface waterproof without closing up the pores. An important point in its favour is that the bricks do not show any discolouration. It is too soon, of course, to state with certainty whether the defective walling treated last Friday has been cured; but the material has been applied with complete satisfaction under other and much more trying conditions in various parts of the country. As an example of recent success we may mention that five thousand houses to be erected by the Birmingham City Council will be waterproofed with "Prufitol." There are various ways of applying the material. But we doubt if there can be a better, certainly not a quicker, way than by the use of the new type of spraying machine demonstrated at Chelsea at the same time as "Prufitol." This compact, simple, and efficient compressed-air machine is made by Universal Sprayers, Ltd.; it may be charged and recharged indefinitely with whitewash, paint, "Prufitol," or other liquid without loss of pressure. The pressure can be varied according to requirements; for the "Prufitol" demonstration it was between 30 and 40 lb. In construction the machine seems to be foolproof and contains a minimum of wearing parts. The 2- and 3-gall. sizes can be strapped on a man's back if desired. A noteworthy feature was the uniform fashion with which the waterproofer was being sprayed on to the walling.

## Housing News.

THE Ministry of Health has forwarded their formal sanction to the Grays Urban District Council borrowing £89,240 for housing purposes, and intimated that it had recommended the Public Works Loan Board to lend the money.

An intimation has been received by the Smethwick Town Council that the Public Works Loan Commissioners are prepared to award a further £100,000 on account for the Council's housing scheme. The Housing Committee state that the whole of the plans relating to the Oldbury area have been approved and stamped by the Ministry.

HULL City Council last week decided to proceed with a scheme for the erection of 500 houses in the eastern portion of the city under the Government Office of Works, the estimated cost of which is half a million. The Corporation's commitments for housing amount to £731,000, of which £300,000 has been raised in nine months by housing bonds. Doubts were expressed as to the city's ability to raise the million now required to finance the Corporation's housing scheme.

Edinburgh Corporation Housing Committee have received a deputation from the Scottish National Building Trades Federation, who suggested that the Committee should subscribe in the issue of contracts to an arrangement approved by the Board of Health, so that when prices had been fixed between the Local Authority and the local association the latter will arrange for the distribution of the work among the local contractors, having regard to their respective resources in men and plant, so as to ensure the carrying out of the work in an efficient and expeditious manner. The Committee decided to consider the proposal.

During the week ending January 14 payment of the Government grant to private builders was made in respect of 573 completed houses. This is by far the greatest number of payments made during any one week since the grant became available, and represents a sum of £136,076. It would appear that completions are now being made much more rapidly, and, of 29,963 houses for which Certificate A has been granted, payments have already been made in respect of 5,384. The total amount already paid in grants is £1,468,123, and the total amount to which the Ministry of Health is already committed is £7,270,818. It will thus be seen that a very large sum remains to be taken up during the present year.



## CONTENTS.

As Others See Us	PAGE 79	The Architect Fifty Years Ago	PAGE 88
Illustrations	80	The Destruction of Serbian Libraries	90
Notes and Comments	80	Prohibition of Building	90
London Art Galleries	81	Reading Society of Architects	90
Art News of To-day	81	Forthcoming Events	90
Royal Institute of British Architects	82	Architects' Benevolent Society's Appeal (Second List)	92
Birmingham Architectural Association	85	The Woodcote Public Utility Society, Ltd.	94
Edinburgh Architectural Association	85	The Tonkin Concrete Mixer	96
National Federation of Building Trade Employers	86	Plywood Door Panels	98
Kelvin Medal, 1920	88	General: Housing News: Trade Notes	98

## As Others See Us.

THE Secretary of the National Housing Association of America has issued an exhaustive pamphlet\* on the Housing question, which, he says, is the outcome of a six-weeks' visit here, spent in intensive study. The writer "has not rested content with obtaining information from Government officials, but has checked the information thus obtained against the knowledge and opinions of builders, Labour men, real estate men, architects' financial interests, housing reformers, members of Parliament, and others." This sounds comprehensive and impartial, but when we examine the list of persons from whom information has been obtained we find that fifteen out of twenty-three are connected with the Ministry of Health, while another three include Mr. Henry Aldridge, of the National Housing and Town-planning Association, Mr. Charles Purdom, and Mr. R. L. Reiss, of the Garden Cities and Town-planning Association. In other words, eighteen out of a total of twenty-three may be said to be special pleaders, while the only moderating influence we can discern is that supplied by Mr. George Hicks, the President of the National Federation of Building Trade Employers, Mr. A. G. White, Secretary of the same body, and Mr. Edwin Evans, the President of the Property Owners' Association. In other words, the process of impartial sifting of evidence must have been a difficult one, seeing that eighteen representatives of one side are asked to give evidence, as against five who may possibly hold different views. It may be that the writer has obtained the opinion of many authorities who do not wish their names mentioned, but if that be so it is unfortunate, since the report as it stands cannot be said to be the result of a careful analysis of conflicting testimony.

The report states that as England is engaged in the colossal task of building 500,000 houses, at an expense to the taxpayers of £20,000,000 a year for sixty years, it affords an object-lesson in the advantages and disadvantages of Government interfering in the realm of commerce and industry, a statement which none will gainsay.

The author, in a preliminary paragraph, states that after talking with people in all walks of society, "each has expressed the conviction, and in no uncertain tone, that had not the Government seen this responsibility, and accepted it, not only would the Government have fallen, but there would have been serious industrial disturbances, and, in the opinion of some observers, Revolution."

We entirely deny the truth of this assertion, which is either that of extremely timid or extremely prejudiced persons; it is unfair and ungenerous to the common sense of a nation which has in the past shown itself stable and courageous to imagine that

such a preposterous sentiment prevailed in the minds of the majority, though we can understand special pleaders making use of such arguments.

If we paraphrase the statement and put it that no Government after the war would have been safe had it shown a complete disregard of the interests of the people, we should probably be correct, but this does not presuppose the necessity for adopting an utterly unsound economic policy, but rather the necessity of finding a means to meet difficulties which was both just and financially sound. Our complaint is that the policy adopted is neither.

We are told that the building of houses through private effort had practically broken down five years before the war, but the chief reason for this—the Finance Act of 1909—is not mentioned.

In other words, the report is one that might be written on a shipwreck or other catastrophe, and the inevitability of the catastrophe is taken for granted, no effort being made to analyse the causes which led up to it.

Despite all this, some of the conclusions which the writer arrives at would be by no means cheering to the housing reformer. Mr. Veiller states that houses in England are always rented at much lower figures than those in the United States, and that the working man usually pays about 15 per cent. of his wages in rent, as against 20 per cent. in America.

He entirely ridicules the assumption that it will ever be possible to raise the rents of the State houses to anything like an economic level. As he says, if the worker with to-day's high wages is only to pay a fraction of an economic rent it is impossible to believe in the feasibility of raising such rents in five or seven years' time, when the general level of wages will inevitably have fallen. As he says, the economic rent of the ordinary house built under the Housing schemes, and including rates, would probably amount to £125 a year or £2 8s. a week, this on the assumption that rates at the present time are a little over half of the weekly rental. As against this the public authorities will be receiving rents of something like from 12s. to 15s. a week. We are, in fact, much more likely to have to cope with "no-rent campaigns" than to be able to write off our losses by increased rents from the new houses. The writer considers that the present policy is pauperising the working man; as he puts it: "To-day the average working man considers that providing him and his family with a dwelling of the very best type at a rent far below the economic rent (for which the taxpayer must pay annually vast sums of money) is not a special favour granted to him, but is his as a matter of right."

We are glad to see throughout the pamphlet that the author clearly insists on the fact that the new houses are being provided at national expense, and

\* "How England is Meeting the Housing Shortage" By Lawrence Veiller, Secretary of National Housing Association of America.



that no relief can be expected in the future from this expense. The conclusion arrived at is somewhat naïve: "irrespective of the disadvantage of Government-built houses and of the unsoundness of a nation's building houses in large quantities to be rented on other than an economic basis, the fact remains that England is producing houses in vast numbers to meet the needs of the people, of a type which marks an epoch in the development of the Housing movement, and will set a standard for years

to come." As we have frequently pointed out, a standard could have been set by local authorities without the State building any houses, and the private speculator would have conformed to it, while the vast numbers referred to chiefly exist—and we hope will exist—on paper only. In conclusion, while the writer would evidently have liked to bless, he has come perilously near to cursing the whole movement, and we doubt whether the Ministry of Health will reprint the pamphlet to give it wider publicity.

## Illustrations.

THE TITE PRIZE.—Winning Design by GORDON H. HOLT.

WAR MEMORIAL: MERTON CHURCHYARD CROSS, SURREY. By H. P. BURKE DOWNING, F.S.A., F.R.I.B.A., Architect.

THE CITY OF LONDON WARDS.—LIME STREET, QUEENHITHE, AND VINTRY WARDS.

## Notes and Comments.

### The Royal Gold Medal.

WE congratulate the R.I.B.A. on the choice of Sir E. Lutyens as the recipient of the Royal Gold Medal. The honour would have been offered to Sir Edwin sooner or later, but we are glad it should be sooner. There are others to whom the Gold Medal should be awarded, but in some cases we fear it may be withheld till too late, which is a pity. The custom of alternating a foreign and an English architect might possibly in some cases be departed from for a year.

### The Architects' and Surveyors' Assistants' Professional Union.

THIS energetic body held a meeting in Caxton Hall on February 3, at which the Union's proposals for minimum salaries were proposed and discussed. While we have every sympathy with the objects of the Union, we hope they will not lose the support which they might secure by going a little too far. Undoubtedly many assistants in the past were inadequately paid and not over-well treated by a certain class of architects, and equally undoubtedly, they can, and do, obtain salaries which vary from two to three times what they were before the war. But we should remember that no assistant worth his salt means to remain an assistant. It is usually a temporary stage, except with the unskilful or unfortunate, being pupilage or other educational period and practice. Before the war good assistants with a reasonable knowledge of their value and enterprise obtained salaries which if not what they might have been were fairly adequate, and architects, who after all have mostly been assistants and are human beings, understood the position. A very friendly feeling prevailed between the better-class architects and those they employed then as now, and we should be sorry to see this done away with and replaced by the sort of armed neutrality which exists between capital and labour. Should this arise the result would probably be that an increasing number of architects would do all draughtsmen's work themselves and a decreasing number of architects' assistants would find employment when they want it. In a nutshell, the good and efficient assistant can get his *quantum meruit* without a Union, and, while we welcome any effort to create good fellowship and to obtain mutual help, we don't quite like the flavour of a "Union." The word is not of happy association.

### The Duties of Architects.

MR. G. A. SCOTT gave judgment in a most interesting case concerning the duties of an architect, and, we are glad to note, gave it in the defendant architect's favour. It was alleged that Mr. Hider, the architect, had been negligent in connection with work involved in converting a house in Beak Street, Regent Street, for warehouse purposes. The defendant had recommended a drastic scheme of reconstruction of the second and third floors of the building, and the allegation of the plaintiff's solici-

tors was that Mr. Hider had pledged his professional skill to make a warehouse fit for the storage of cloth goods, but Mr. Hider contended that he had only contemplated making the building fit for the Golden Square trade. The premises were let to a tenant whose requirements involved floors capable of sustaining  $2\frac{1}{2}$  cwts. to a foot super., and it was admitted the floors were not strong enough for such a weight. The defence came to the conclusion that the architect had not given the specific guarantee alleged, and that he had exercised exceptional skill in dealing with the matter, nor was he convinced, as was alleged, that Mr. Hider had been careless as to the superintendence of the work. The case was therefore dismissed with costs, but such occurrences indicate the nature and extent of the responsibilities which often fall upon an architect who is dealing with alterations to an old building.

### The Building Gilds.

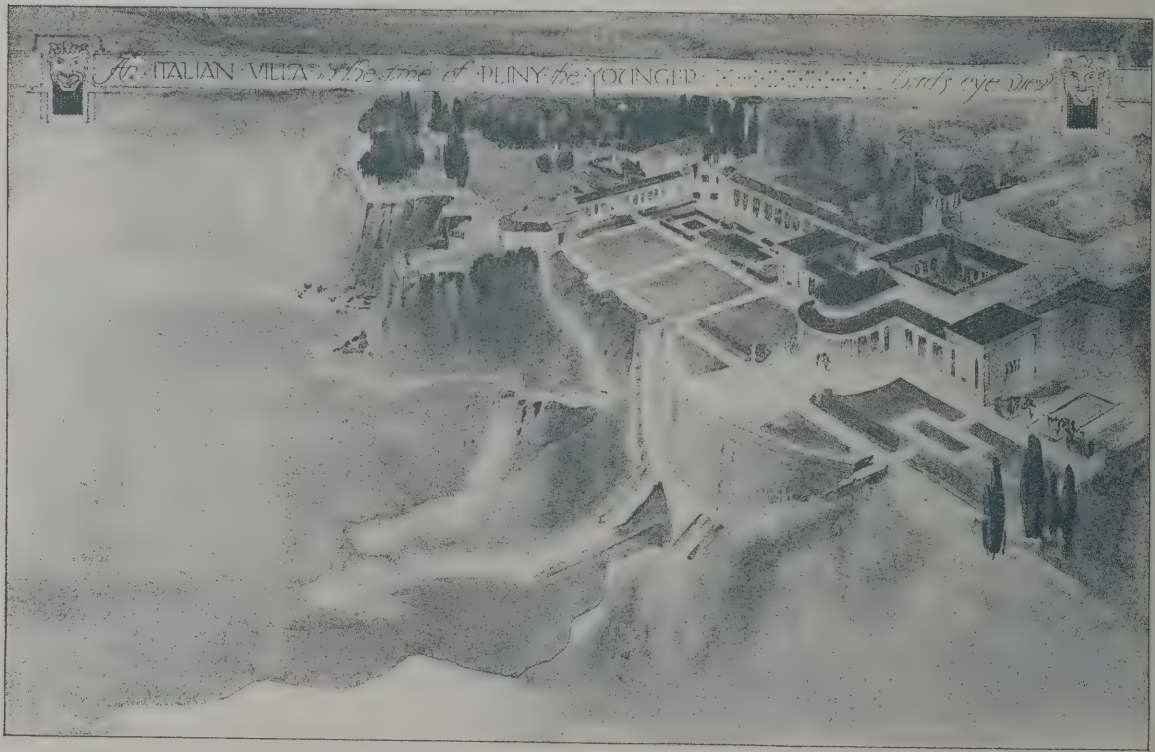
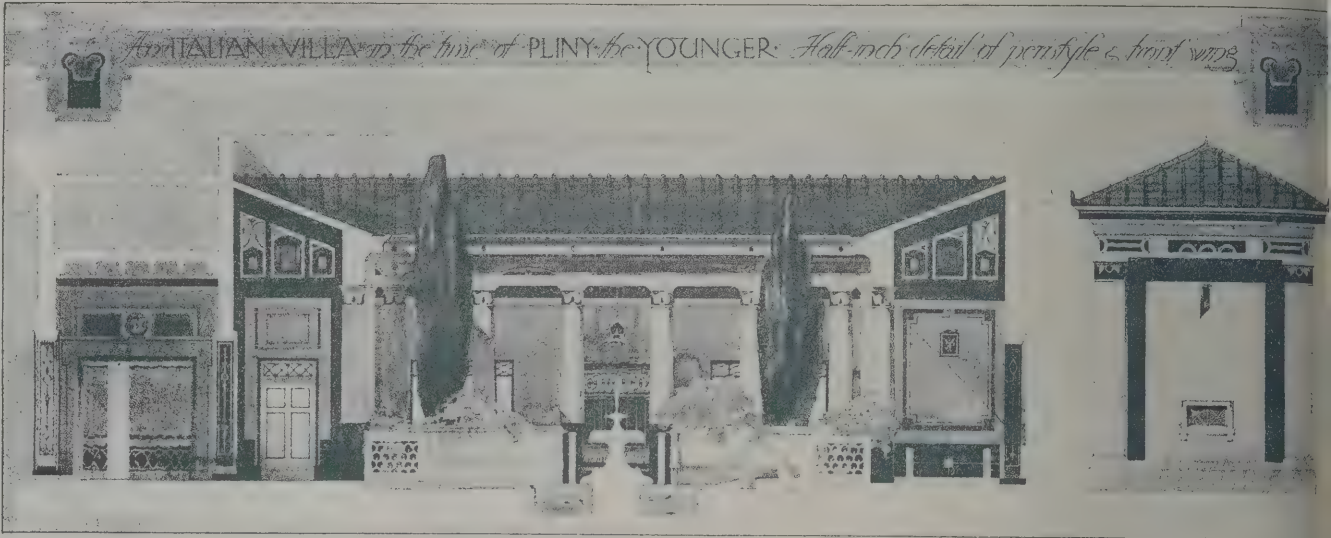
MR. W. E. F. MACMILLAN, in an excellent letter to "The Times" on the subject of the Building Gilds, says:—"Mr. Malcolm Sparkes, in his letter published in your issue of January 22, appears to suggest that the Gild of Builders is a microcosm, on the pattern of which a complete new industrial system could be set up. How can this be, seeing that the only function of industry which the Gild is undertaking, or is in a position to undertake, is the secondary function of supplying goods for which the market is secured in advance? The vitally important primary function of industry, the laying out of capital in anticipating future demands, experimenting with possible improvements, &c., with the risk of failure through factors which in many cases could not be foreseen, is apparently not contemplated by the Gild, nor could it be by an organisation which deprives itself of the only sound source of capital, industrial profits on an adequate scale. It is no new discovery that where there is no trading risk goods can be supplied at a low margin above cost. Nor is there anything new in the application of a surplus to the improvement of industry. This is already the destination of a great part of the industrial profits realised, whether distributed as dividends or not.

"In regard to security from the hardships of unemployment, it is quite true that the opinion is gaining ground that each great industry should organise such security for its members. But the framing of a sound scheme to bring this about is at bottom a financial and commercial problem, and attractive plans for giving continuous pay at full rates to men, whether working or not, will go the way of the attractive plan of Farrow's Bank to pay interest on current accounts, unless it is soundly conceived in this respect."

We believe that if we could look forward ten years we should not hear much of the Gilds, but, of course, we may be mistaken.

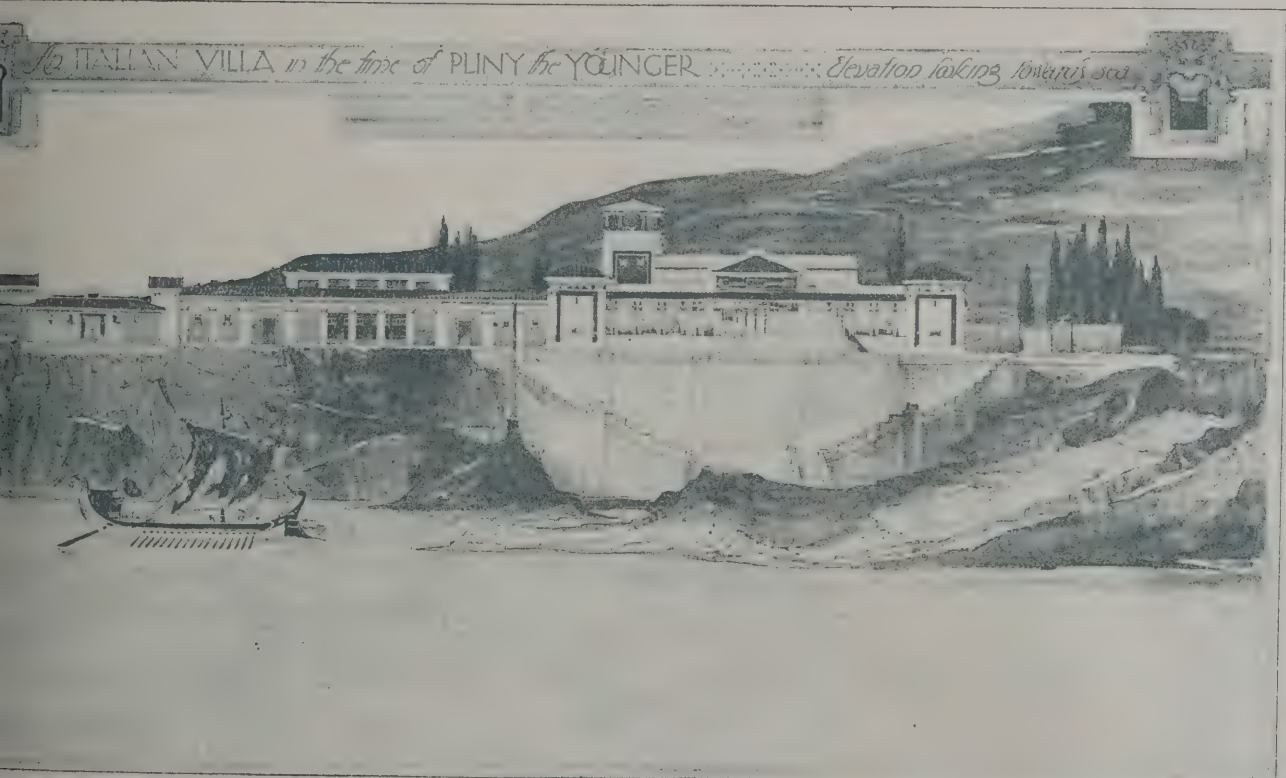
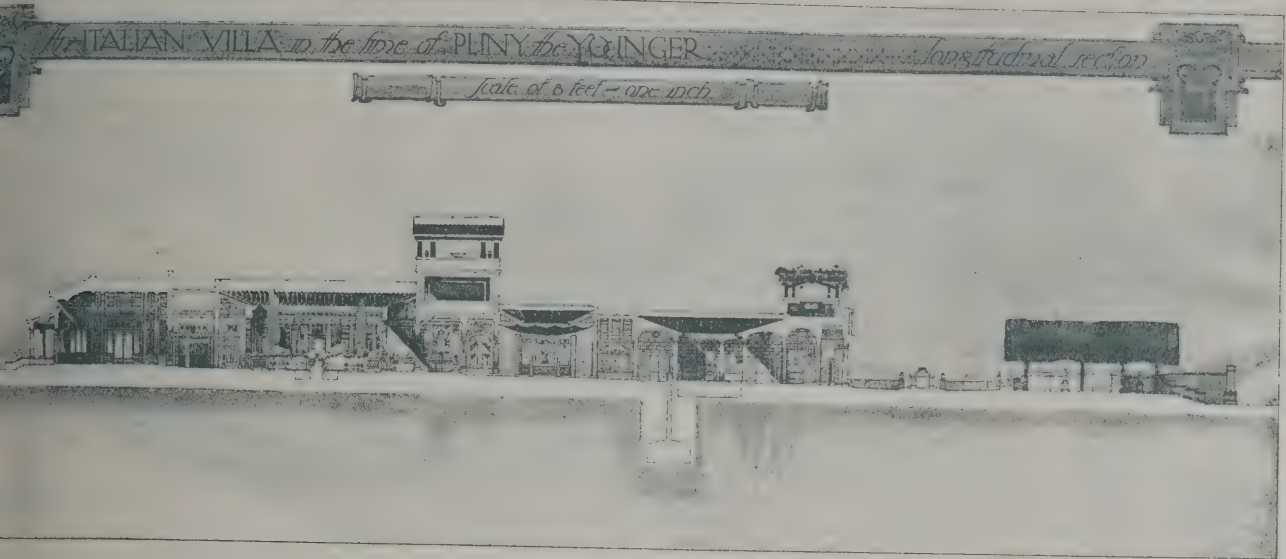








JARY 4th, 1921.



"INK-PHOTO." SPRAGUE & CO. LTD 69 & 70, DEAN STREET, SOHO, W.

GORDON H. HOLT.







See Memorial

# CHURCHYARD CROSS

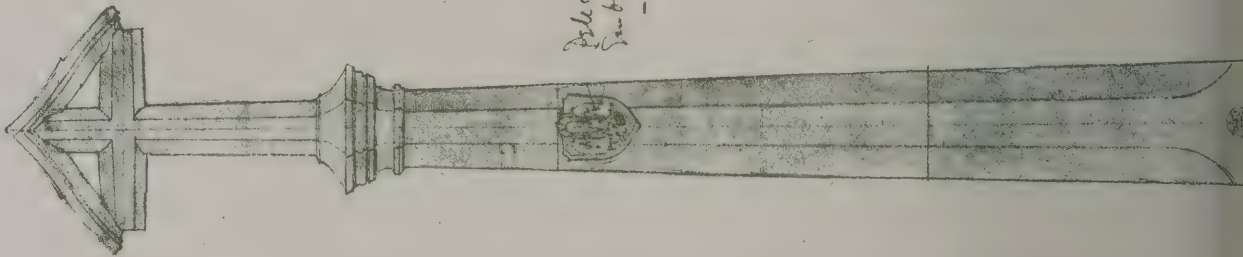
S. Mary the Virgin - Uxbridge.  
Surrey.

July 1920

See Clapham Stone

The surface to retain  
lost marks. The  
cross to be softly  
rounded.

Stonework to be in  
lime mortar -  
Copper works.



Pile in  
position

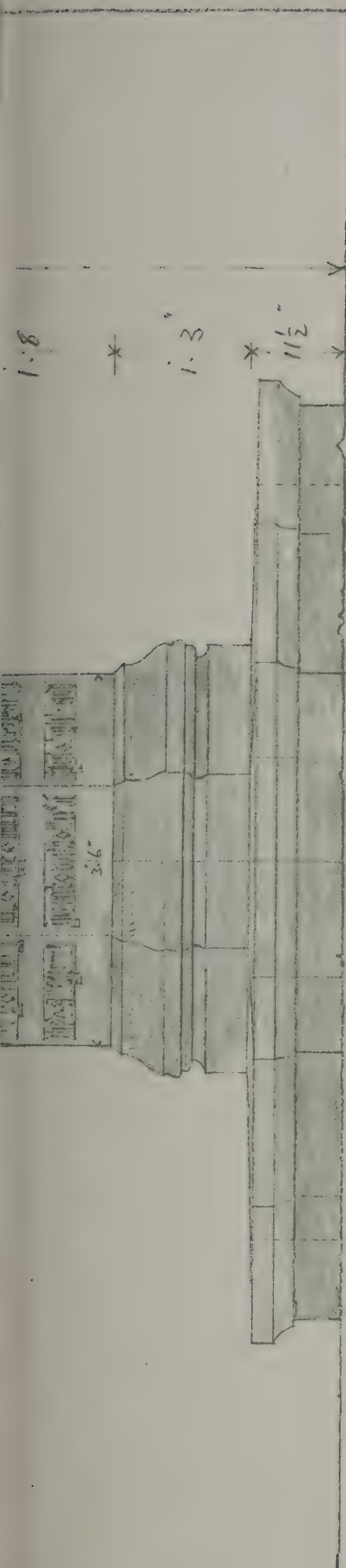
The inscription carved in  
two bands - see full size

+ the surviving testimony of the  
men of this parish who  
laid down their lives in  
the War 1914-18.

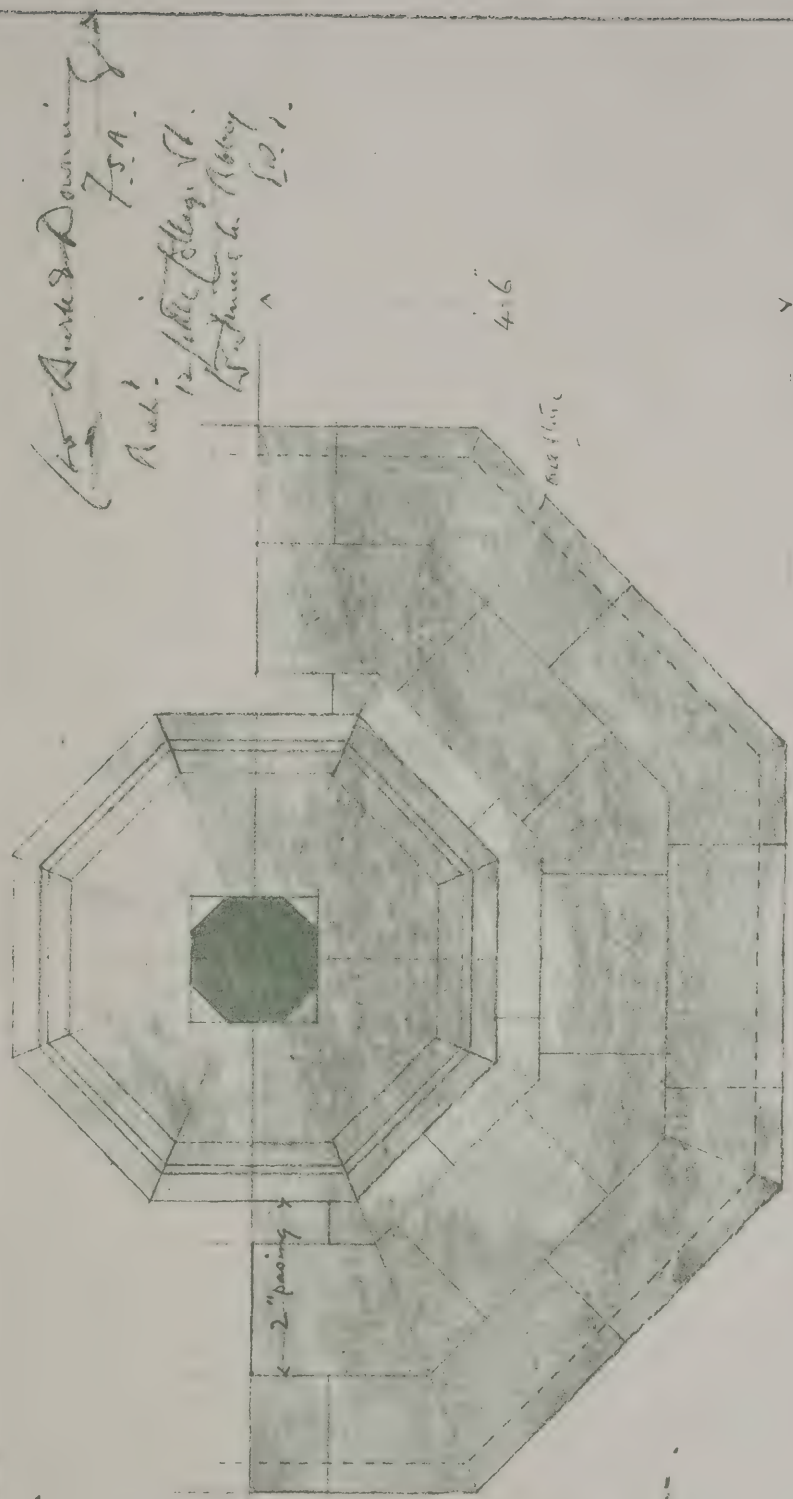
+ Mary, God's All-Merciful  
Nurse, who from the light

3-6





Elevation



Plan

Scale -



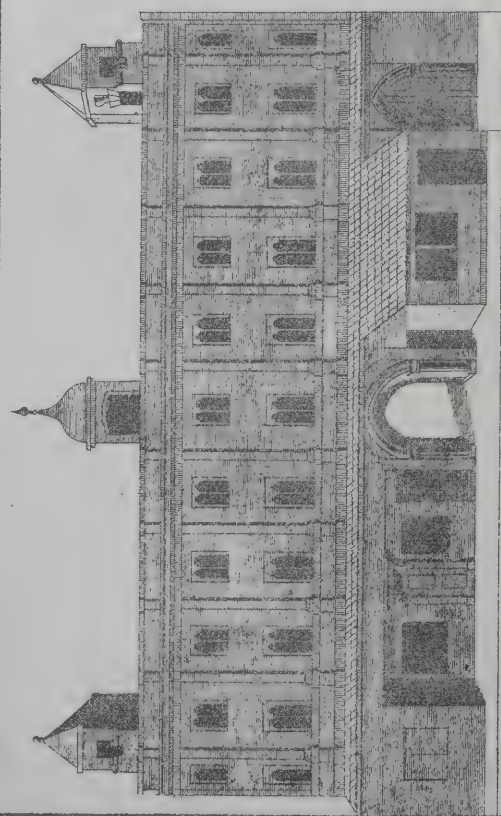
"INK-PROOF" SPRAGUE & CO. LTD. 69 & 70, DEAN STREET, LONDON, W.

WAR MEMORIAL: MERTON CHURCHYARD CROSS, SURREY.  
BY H. P. BURKE DOWLING, F.S.A., F.R.I.B.A., ARCHITECT.

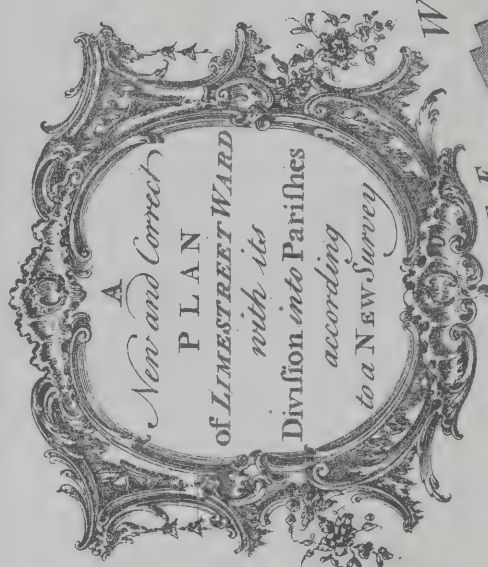








The Front of Leaden-Hall.



A  
New and Correct  
PLAN  
of LIME STREET WARD  
with its  
Division into Parishes  
according  
to a New Survey



The Works of John Porter Esq.

WARD

ALD GATE

PART OF

LIME STREET

HERB MARKET

FISH MARKET

LEADEN HALL

GRACE CHURCH STREET

FRENCHURCH STREET

ST. MARTIN'S

ST. JOHN'S

ST. ANDREW'S

ST. PETER'S

ST. GEORGE'S

ST. MICHAEL'S

ST. NICHOLAS

ST. EMERSON'S

ST. JULIAN'S

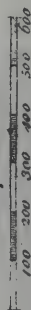
ST. BARNABAS

ST. MARTIN'S

ST. JOHN'S



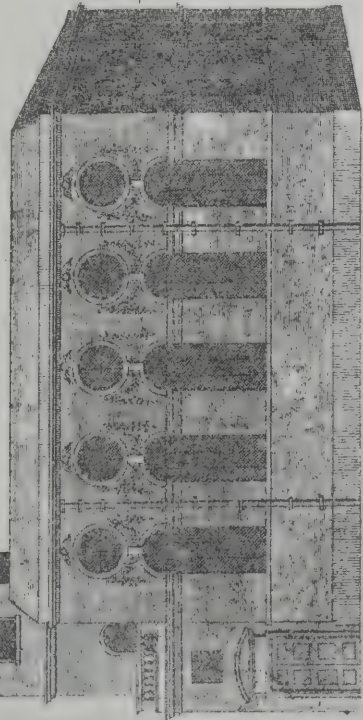
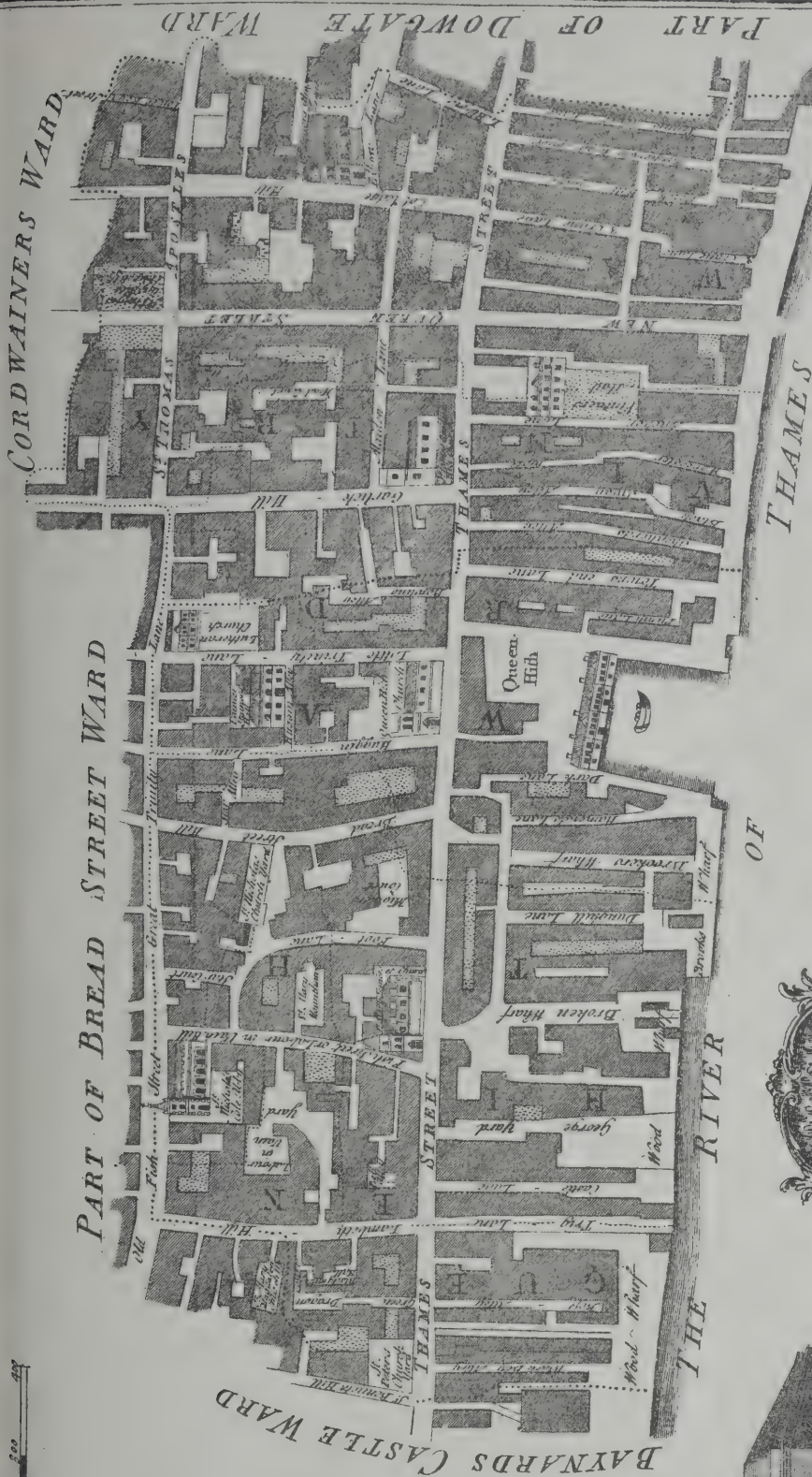
Scale of 600 Feet.



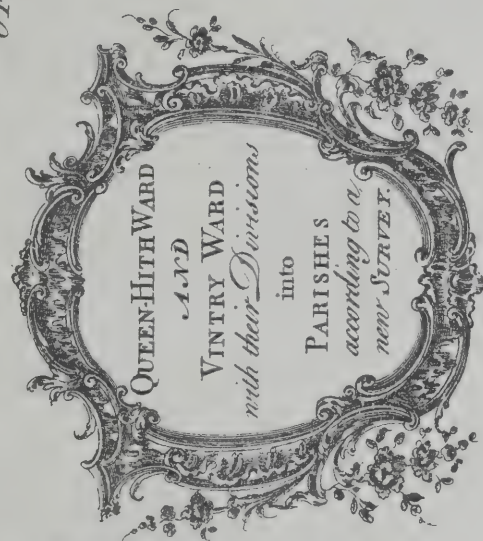
This Plate is most humbly Inscribed to JOHN PORTER Esq. Alderman of Lime Street Ward. 1755.

H. Cole sculp.





*The Parish Church of St. Michael's, Queen-Hith*



*The Arms of St. Crispin's, Queen-Hith.*



*The Arms of St. Andrew's, Queen-Hith.*

*These Plans are most humbly Submitted to St. Crispin Gascoyne Knt. Alderman of Vintry Ward. And to Marsh Dickenson Esq. Alderman of Queen-Hith Ward. 1755.*





## London Art Galleries.

(All Rights Reserved.)

OF exceptional interest is the admirably arranged memorial exhibition, which opened on January 27 at the Fine Art Society, of the drawings and cartoons of the late F. H. Townsend, who was for fifteen years (from 1905-1920) art-editor of "Punch" and a constant contributor to its pages. There are probably few of my readers who have not often seen and enjoyed this artist's clever drawings, which we now miss so much; and in the present exhibition there are presented more than a hundred of these drawings, with the very useful addition of their accompanying text. Mr. Townsend's humour was fresh, natural, spontaneous—an outcome of his own delightful character; and I can speak here from some knowledge, having known him more than twenty years ago. His interest in sport comes out in many of these drawings, which hang on the humours of golf, cricket ("Our Village Cricket Club" is a series), and fencing: perhaps "Punch" was never better in our times than during the war, and in this connection we see in these drawings how much we owed to Townsend's contributions. To this period belongs the enthusiastic musician, who, keenly appreciative of the hum of the Gotha overhead during a raid, strikes a note, while to his wife (under the table) he explains, "Listen, Agatha, exactly B flat"; and also some of his admirable designs for covers, such as the cover of "Punch" Army Number in 1916, the "Punch Almanack," with Mr. Punch as St. George making the Boche dragon "squirm," the Navy Number cover, and "an alteration of the 'Punch' cover to suit the German idea."

To the poultry-fancier might appeal the drawing with the legend: "Egg spoons! Annie, egg spoons! when you lay eggs always lay spoons too!"—and to the victim of social functions the ingenuous remark of Phyllis to her hostess, "I am very sorry, but I think we must be going, Andrew has borne it long enough." A melancholy interest attaches to "The Last Sketch," which shows one figure still left in pencil as part of the preparatory scaffolding; and a special note of interest attaches to the artist's etched work, of which ten specimens appear here, generally of figure-subjects, and among which "Surprised," "Patience," "A Fashionable Lady" (in Bond Street in 1914), and two subjects from the East, "Arabian Nights" and "Girl in Eastern Costume," show us that the artist had powers in this direction which, had he been less tied by regular work, he might have carried further.

The inner room of the Fine Art Society's Galleries is occupied by an exhibition of the paintings of Mr. Montagu Smith, which opened also on January 27. There is vigorous work and good colour in these oil paintings, among which I noted "Sea of Paramé," with wind-tossed waves breaking over the rocks, "Twilight," with the dark shadows of the trees and on the water; "Eventide," with figures of bathers outlined against deep verdure; "A Normandy Pastoral," and—best to my mind of all—the admirably suggested distance in "A Fenland Canal."

At the Leicester Galleries Mr. H. M. Bateman will shortly add to the gaiety of London by an exhibition of his recent humorous drawings, which is to be opened on Saturday, February 5, and may very probably recall the success of his first exhibition two years ago, when such crowds came to these drawings that a queue had to be formed of the visitors.

The Greatorex Galleries have this month an attractive series of mezzotint and colour reproductions from the English masters of the eighteenth century, amongst which I noted specially the "Lady Fleming," by Smythe after Reynolds, and two other very charming colour reproductions after Lawrence, by the same artist. On February 23 will be opened in these Galleries an exhibition of paintings dealing with English Gardens, by Arthur Power. There are some fine modern etchings now on view at the same rooms, which I may notice in detail next week.

The Goupil Gallery on February 3 has a triple exhibition which promises to be of interest,—of paintings and drawings by John Nash, of recently painted works by Mark Gertler, and of what are called "Bois Nègres," which will be a collection of African Negro wood carvings.

S. B.

## Art News of To-day.

A VERY exceptional collection of illuminated manuscripts is now on view at the Victoria and Albert Museum, lent in most cases by the Dean and Chapter of Durham Cathedral; and the result of a personal inspection leads us to recommend this visit to those of our readers who have an hour, or even less, to spare. We noted specially the "Cassiodorus super Psalterium," which is an English work of the eighth century, with its fine upright lettering and Byzantine-looking figures: but, of course, one of the greatest treasures displayed here is the "Evangelia Quattuor," a manuscript popularly known as the Gospels of St. Chad. This remarkable work is Irish, dating from the beginning of the eighth century; and, from the artistic side, what is most attractive is the lovely decorative scrollwork with the full ornamented pages of text at the beginning of each Gospel. We feel that a work like this was not merely a loving labour of years, but of a lifetime perhaps,—the soul of the old Roman culture hidden away in these remote western monasteries, and seeking to hand down out of the savagery around their greatest treasure, the Gospel of Christ. This book, lent by the Dean and Chapter of Lichfield, came to St. Chad's Church at Lichfield before the end of the tenth century.

We might mention also the "Berchoni repertorium morale," an English work of later date—the end of the fourteenth century, probably about 1395—with its beautiful lettering and colour miniatures; the "Biblia Sacra," another English book of late thirteenth century, with figures introduced in the initial letters; the "Concordia Evangelistarum," English fourteenth-century, with its fine bold lettering—both these last from Durham; and, lastly, the famous "Biblia Sacra," called the Winchester Bible, as it comes from Winchester Cathedral, which is English work of the twelfth century, with well-drawn figures freely introduced in the capital letters.

The appeal of the National Art Collections Fund to the nation to acquire for our National Gallery the grand painting of the "Adoration of the Magi," by Pieter Brueghel the Elder, has aroused considerable interest; and there was quite a small crowd round the painting when we saw it in the Gallery—where it is hung temporarily in Room XIV.—last Thursday. The work in question is one of very fine quality, and should undoubtedly, if it is humanly possible, find a permanent place in our collection: it is a masterpiece of clear, vigorous design, of rich colour and of characterisation. Among the detailed figures may be noted the Negro Magus in his long robe of soft warm white, with red boots (which seem a little disconnected with his legs), and the kneeling king in his robe of rose colour, the sleeves, trimmed with ermine, so long that he has tucked one of them into his belt. Apart from the negro, who is an exotic, these are one and all obviously Flemish peasants, copied faithfully from life; and the same applies to the Virgin and Child themselves, and still more to that wonderful crowd, the guards and attendants of the Kings, who stand behind admiring.

It is interesting to compare this grand work with the no less fine painting by Mabuse of the same subject in this same Room XIV. Brueghel's panel is more crowded and more emotional: in the other each beautiful figure—such as that long-haired page—lives for itself.

The price asked for Brueghel's Adoration is £15,000, which seems by no means excessive; of this sum the trustees of the National Gallery are prepared to find half, and the National Art Collections Fund has contributed £1,000 from its own funds and found another £3,000 from its members. This leaves £3,500 still to be raised to secure this noble work for the nation.



## The Royal Institute of British Architects.

An ordinary general meeting of the Royal Institute was held on Monday last, Mr. John W. Simpson, president, occupied the chair.

It was announced by the President that the Council propose to submit to His Majesty the King the name of Sir Edwin Landseer Lutyens, R.A., as a fit recipient for the Royal Gold Medal in Architecture this year.

Mr. John W. Simpson then delivered the following

### Presidential Address to Students.

*"The Invention of young Men is more lively, than that of old: And Imaginations stream into their Minds better, and, as it were, more divinely."*—BACON.

The address which I have the privilege of delivering to-night is that directed—by long custom of the Royal Institute—to students of architecture, upon the occasion of presenting to them the prizes they have won by meritorious performance. Highly as I esteem and appreciate this privilege, it implies, as I view it, one of the greatest of the many responsible duties laid upon your President. Himself a student—for we architects must ever be learning, storing the little cistern of our capacity with drops of knowledge wrung from work and experience—it falls to him to advise, encourage, and help his younger fellow-students. The task is both difficult and delicate. Architectural students are critical folk, whose training teaches them to require the best of workmanship and material, to detect and reject those of inferior quality. They are not to be fobbed off with second-hand mental wares, nor propitiated by faded posies culled from the garden of art, where the choicest flowers are common property.

There exists, I suppose, in the mind of every man who has lived, loved, read, and observed in reason and variety, the equivalent of that spare drawer wherein we keep discarded trifles, in a mulish belief that they will at some time be needed again. The little key of which the lock has disappeared, disparate fragments of wood and metal fittings, burnt-out pipes powerfully fragrant of former happy days, miscellanea which "it's a pity to throw away." Ladies, I am told, are free from this agreeable weakness, and if a hat—for example—has seen its day, will scrap it ruthlessly, as Americans do machinery. A man would wear it till it fell to pieces, and then secrete it, with the idea that it might "come in useful for something else."

Turning over, therefore, the half-forgotten contents of my memory in search of a fitting subject for this discourse, I found, without surprise, much to set aside as unworthy for presentation: many items sadly incomplete, some out of date, others a bit rusty and unfit for use without refurbishing. But I came upon an incident of which my friend Barry Pain once told me. "For some years," he said, "I wrote a sketch-story of about a thousand words every week for an illustrated paper—work which should have been easy enough. One day, however, I began to worry. I wondered what I should do if one week I found that I had got nothing—that I had come to the bottom of the bag. I wasted a whole morning in this silly way; then I saw what an idiot I was, and wrote a story about an author who did come to the bottom of the bag." The story conveyed the moral for me that it does for every creative artist—"There is always a fresh side to the obvious." Why, thought I, should I sift out matter for an address to students from a heap of book-knowledge when I have been forty years in the active practice of their profession and have learned things they cannot find in books? "Nos te nos facimus Fortuna deam," it is we ourselves who make Fortune a goddess, quotes Samuel Butler; and shrewdly observes that this is only true after Fortune has made us able to make her so. The poet says nothing as to the making of "nos." There was no need to look further for my theme.

I saw myself, not in 1881, when I was taken into partnership by an older man—continuing my work at

the Royal Academy schools in the evening—but some three years later, when that arrangement terminated. A life-belt is a useful contrivance, but it hampers the movements of a swimmer. Being both hopeful and short-sighted, I had cast mine away, and was now in deep water; to be more exact, in a tiny office of my own, with no very clear prospects and a rental liability about my neck of some twenty pounds a year. Here I spread out some papers and drawings to suggest pressure of business, and hung perspective views upon the wall: mendacious indications of vast experience in the erection of buildings.

I digress for a moment on the subject of the architect's office—that, at any rate, in which you receive your patrons. Like everything else you create, it will be, in some sort, a portrait of yourself. See that it be a pleasing one. For the most part it resembles a second-rate solicitor involved in building speculations. Your office should have its distinctive atmosphere, congenial to a cultured client; I would hardly commend perspective views for decorative purposes, or even for advertisement. Hang rather a few fine photographs of the great buildings of all time which he can discuss with interest; little of your own work, and that carefully selected of your very best. If you bear this in mind the latter will be pretty frequently changed. We have many lady-students now, how many I do not know; a young gentleman of whom I sought information replied, "Oh, crowds." By reason of their sex they must needs possess that most valuable attribute of the architect, "a tidy mind"; and when their influence begins to be felt we may hope to find an improvement in our surroundings.

To revert to my own installation. Its arrangement was of no great importance, for no one called to see me but friends as impecunious as myself, who filled the room with smoke, heedless of the possible visit of a fastidious client. The postman was infrequent—I often regret that time—and the circular he brought was perused with grateful interest. I consoled myself with the reflection of the great Dr. Morin, "Those who come to see me, do me honour; those who stay away, do me a favour."

Those entering upon the practice of our profession have one great, one unique advantage. While in other callings even those with talent, assiduity, and other qualities which should command success, may have to await for years an occasion for their employment, the architect's opportunity is available at once. He can always keep his equipment bright by constant use, for most of the great prizes of his profession are thrown open to competition by all. He has, from the outset, the chance of showing what he can do; success depends, with unusual directness, upon his technical ability; and the capital demanded for his enterprise is represented by a few sheets of drawing paper and some wooden strainers. To this opening I naturally turned my attention, and was rewarded with success; it was not long before I had plenty of work.

As a very old hand, both as competitor and assessor, I now venture a few words of advice concerning competitions. As a means of practical education, the study of a given subject, not for mere academic exercise, but for the purposes of a building to be actually erected at a definite cost under the responsible supervision of the designer, is invaluable; provided that it be followed (in the case of non-success) by its honest comparison with the winning design in order to find the cause of failure. When evolving a design bear in your mind that a mere solution of the problem offered will not suffice; a competitor must never rest until satisfied that his solution is absolutely the best that can be found; that there is, so far as he can see, no way of simplifying or improving it. A single shortcoming may be the only difference between the first placed and the second. And, should you seem at a standfast, in despair of new ideas continuing drawing nevertheless, there is no surer way of evoking them. However reluctant be the Muse she must yield at last, for the persistence of her suitors is her own inspiration. I add one caution. Keep your design always in your



thoughts while it is proceeding; unconscious cerebration produces astonishing results. But, once it is finished and packed, dismiss it wholly from your mind; no amount of further worry will help you, unless you can exert telepathic control over the Assessor.

Most competitions are for public buildings; for these, simplicity of plan is essential, so that strangers may easily apprehend it, and find their way about the building without embarrassment. The working of the human mind, however, inclines to ingenious and complex solutions in the early phases of thought. Mistrust these; concentrate upon and disentangle them, until your plan appears so obvious an arrangement that you wonder why any one should dispose it otherwise. This kind cometh not out but by prayer and fasting, the ruthless rejection of everything that ingeniously evades instead of clearly meeting the issue. Half the difficulties of design arise from your mind being obsessed by some pet architectural feature, around which it is, perhaps quite unconsciously, trying to build up the whole conception. Try cutting out that tower, dome, chimney, or whatever it be that you value so highly; the chances are that the entire composition will then rearrange itself spontaneously, like the glasses of a shaken kaleidoscope. Lose no opportunity of getting a fresh eye to criticise your work. Show it to your friends (unless they be corrivals) and see their work also; this will, incidentally, enable you to follow Dr. Johnson's advice and "keep your friendships always in repair."

It is disheartening to reflect on the labour wasted in nearly all competitions by the preparation of designs which do not comply with the conditions. This arises from looseness in reading and analysis, a defect so serious in the mind of an architect as to be almost a disqualification for the calling. Conditions should be read, not once or twice, but continually as your design proceeds; every point being tested by reference to the text, in which "Answers to Questions" should be inserted at the proper places. I would add that if "conditions" are properly drawn, but few "Questions" should be needed. Numerous questions indicate a slovenly assessor.

In most cases competitors are required to estimate the cost of their design by stating its contents in cubic feet, and the rate per foot cube at which they value it. It is well to bear in mind that these figures will be checked by the assessor, and that under-statements in either respect may influence him adversely. It is quite useless to "cook" an estimate by pricing a portion of a building at what would be a fair flat rate over the whole, and taking the remainder at a lower figure. Nor does it impress an assessor favourably to find, as in one case I recall that a competitor has treated a large Central Hall as being a "void" contained between the surrounding blocks, and merely added a small sum to represent its roofing and floor. Such a method of calculation, it is true, reduces the apparent cube, but it also lessens materially the author's prospect of success. It has been my own practice, in drawing the conditions for recent competitions, to settle the rate to be allowed per cubic foot. It seems to me a better guide to what is wanted than a limited total sum, which cannot be accurately determined until the building is designed; and it removes the temptation to competitors to price at impossible rates.

Estimates and descriptive reports are, too often, hastily concocted at the last minute. They should, on the contrary, be prepared very carefully *pari passu* with the drawings; the cube being calculated at every stage in order to control extravagance in plan and section. The description and estimate offer occasion to indicate an author's clear-headedness and methodical character, just as much as the drawings show his artistic qualities.

At one time—the fashion is now infrequent—a competitor's chances were thought to be improved by showing "alternative treatments" of portions of his design by means of hinged "riders," the idea being, apparently, that if the foolish assessor avoided Charybdis, he should at least come to grief on Scylla. I have, indeed, known three different riders successively superposed upon a plan, which, as you may suppose, offered no more than a

choice of evils. I cannot too strongly discourage such a practice. It should not be the aim of a competitor to set riddles to the assessor, but to convince him that the design before him is the best. How can its author hope to convey such a conviction when he himself is manifestly in doubt?

Now, a word as to the final stage, the judging, of a competition. Attempts are often made to estimate the length of an assessor's foot; and the guesses are generally wildly wrong. It may help you to win competitions of which I am assessor if I tell you something of my own methods.

First of all, I make a cursory survey of all the designs, and determine a system of marking. Next—with the conditions before me—I examine them *seriatim*, and make a sketch of each plan, for I find that this gives me better insight of the author's meaning than I obtain from mere notes, and is very convenient for reference; it also shows me at once if staircases are impracticable, walls unsupported, or construction defective. I then read the reports, and give a first marking to every design. Having thus made myself generally familiar with the work submitted, I eliminate those sets which are plainly inferior, and re-mark the remainder, adding or deducting marks as necessary. The reason for this second marking is that, in the course of examining a large number of drawings for the first time, one is apt to vary the standard of values; a good design coming after a poor one is likely to be overmarked, and *vice versa*. By the time the first round is ended this standard has fixed itself pretty definitely.

After the second marking the best designs stand out clearly above the mass. These are taken up for searching analysis, their reports again read, and the cubic calculations and estimates checked and tabulated. As a general rule there is little doubt about which design is to be placed first; those for second and third, still more for third and fourth places, often demand most anxious consideration of their relative merits.

The enterprise of competition is of inestimable value to those beginning their career; I speak of that great majority in whose mouths no good fairy has placed a silver spoon when they were born. It is the cleanest kind of fighting in the inevitable struggle for a livelihood. No back-stairs influence, no hateful cultivation of acquaintances with an eye upon their pocket-values, avail to increase your prospect of success in such contests. You are independent, and are judged on your work alone. Competition keeps your knowledge from rusting, and increases it; proves your position among your fellows; exercises your courage to attack grim labour; strengthens you to accept disappointment and return hopefully to the conflict, determined to win.

Above all, competition inures you to the divine habit of work. "Work—and dreams; high hopes for the future. There is nothing better than that combination." Glory be to work! When trouble and distress befall—as certainly they will—it is to work that you shall turn as to a familiar, consoling friend. It shall bring you oblivion of pain, and peaceful good sleep fitting you to face your sorrows. The curse of Adam concealed the greatest blessing mankind has ever known.

#### VOTE OF THANKS.

Sir L. A. Selby-Bigge, in proposing a vote of thanks to Mr. Simpson, alluded to the unusual modesty of architects in not signing their buildings, but he seemed uncertain whether on the whole this was or was not advantageous to them. In conclusion, Sir Selby-Bigge addressed a few remarks to those students who had failed to win prizes and he emphasised the satisfaction that always comes from good work done whether recognised or not.

Lady Banister Fletcher seconded the vote of thanks. The honour had been offered to her, she thought, not because of her own personality, but as representative of the welcome the architectural profession had extended to women students.

The vote of thanks was then passed by acclamation.



Mr. H. P. Burke Downing, F.S.A., F.R.I.B.A., then delivered a

### Review of the Designs and Drawings submitted for the Institute Prizes and Studentships.

The work of reviewing had been lessened this year, he said, by the fact that the Soane Medallion for Design and the Pugin Travelling Studentship have not fallen to be competed for this year, and, further, the Owen Jones Travelling Studentship and the Henry Saxon Snell Prize have not attracted any competitors. Unfortunately also, the number of entries for some of the other prizes has been small. The Godwin Bursary for the study of "Modern Architecture Abroad" has been awarded to the single competitor (Mr. C. B. Pearson) for a collection of drawings showing that he has done much good work in the practise of his profession since he obtained a medal of merit in the Tite Competition of 1906. There was also only two entries for the Essay Prize (not awarded), and only one entry for the Grissell Gold Medal (also not awarded). For the Institute Silver Medal for Measured Drawings there were four competitors, and for the Tite Prize eleven.

If these numbers ought to be taken as showing any falling-off in the keenness of younger members of the profession to take part in these competitions, it would be very much to be regretted; for it is hardly possible to exaggerate the stimulating effect of these competitions. They give the opportunity to students to put forth their full powers in carrying to completion a definite and difficult piece of work. The effort may reveal to themselves the possession of powers which, untried, might lie dormant. The trial will give them reliance on their powers and courage to meet and overcome the novel difficulties which they will experience when they leave the schools behind them and are embarked upon the responsible practice of their profession. It is good, too, for the schools themselves, that the products of their training should be subjected to these external tests.

But there are probably other reasons than any loss of keenness to account for the paucity of numbers of competitors. The pursuit of the peaceful arts has suffered a long interruption and, after the violence of war has ceased, it has not been easy again to take up the thread of studies laid aside to answer the call of the Country's need and to induce once more the calmness necessary to their successful prosecution. We may, therefore, rather feel some thankful surprise that so much and such excellent work has been done, especially in connection with the Tite Prize.

Recalling the exhibitions of twenty- or twenty-five years ago, there is very observable the increasing influence of the architectural schools. If from this influence there is some danger of restraint of individuality, the schools have undoubtedly brought about a raising of the general level of work; there is less inequality of performance—very little absolutely poor work—and for this all praise is due to the schools. Nevertheless one misses, especially in the draughtsmanship, a certain freedom of individual method which was a product of the times before the academic influence had become so strong. It is significant that there are no drawings of mediæval work in the exhibition. This is not, however, to suggest that there is not excellent draughtsmanship. There is—even when it is joined with design marked by absence of inspiration—but it is not of the order that plainly exhibits qualities or character rather than the training of the draughtsman.

While drawing is obviously taught so well and with such excellent results in the schools, it is a little unexpected that one should find so few students desirous of competing for the only prize offered for construction, a subject not less necessary nor, one would have said, less suitable to engage the attention of the schools. It may be that it is not so easy to draw out enthusiasm for this branch of the complex art of architecture; but excellence of draughtsmanship can be no substitute for knowledge of construction: true design cannot proceed from the one without the other, and it is very necessary that equal

means and opportunity should be afforded in the schools for the study of both.

Mr. Burke Downing then proceeded to give a detailed criticism of the various competitors' efforts. The aspirations of the sole competitor for the Grissell Gold Medal (for which the subject set was a kinema) were, he said, fatally injured by the fact that his structural diagrams are inaccurate. With modern needs and modern methods it is daily more necessary that students should be taught to master structural mechanics, and not to regard such matters as a branch of their art for which they can rely upon the engineer. A mastery of construction is necessary to design.

The two competitors for the Essay Medal made, he thought, the not uncommon error of failing to appreciate what is wanted. An essay of this character is not intended to be in the form of materials for a book. It should be complete in itself and fully develop, while it illustrates, some thesis: it needs to lead up to some conclusion which (as is expressed in the conditions of the competition) will make a useful contribution to knowledge and constitute an authoritative statement on the subjects dealt with. Both essayists were too closely tied to the material which they have collected from their reading.

There were only four entries for the Measured Drawings Silver Medal; but the competition was close, each competitor having produced what is a valuable record of some building of classic or Renaissance architecture, and the work is good and conscientious. But many of the drawings suffer from a rather mechanical and laborious manner: survey notes and plottings are involved, and do not evidence sufficient care or a very intelligent appreciation of the subjects. We expect to find fine draughtsmanship in these studies and it should express the character of the buildings and be the outcome of the student's enthusiasm for, and sympathy with, his subject. That there should be a marked falling off in the study, by drawing and measurement, of old work is much to be regretted. For a revival of enthusiasm one may commend to the attention of students especially the English traditional work, little as it may now be in fashion.

For the Tite Prize the subject was a design for an Italian villa inspired by Pliny's description in a letter to Gallus, not to be regarded as an archaeological exercise, but as an inspiration for a building on similar lines. This most happily chosen subject has proved an inspiration of good work and designs of great merit and exceptional interest, while the winning design has hardly been surpassed in brilliant imagination and scholarly rendering in this competition for many years. The subject was one to emphasise the importance of the competitors most carefully weighing the whole of the instructions given them with a view to seizing and holding the main idea of the scheme. Everything is described in language of modesty and restraint which, while it rules out grandiose treatment, perhaps in some measure conceals the fact that the house described is that of no commonplace citizen but the chosen home of a statesman of the most refined taste and elegant learning in literary retreat. The schemes of some of the competitors are of too ambitious a character, showing indeed a great deal of zeal and painstaking industry, but evidence of recourse to text books and not enough of individuality and power of design. A free combination and adaptation of Italian Renaissance has been favoured. In drawing the work is generally good, but suffers from dullness, and is sometimes spoiled by laborious and not always well applied spraying and grounding, which does not help. These drawings clearly come mainly from one school, but hardly do justice to the school. Though academic they are immature.

Mr. Burke Downing, after discussing various designs submitted in the Tite, concluded as follows:—

"There remains the design of the winner of the competition, which will by universal consent be proclaimed the finest piece of work of the year, and sufficient of itself to make the year a notable one, had it stood alone."

"The successful competitor is Mr. Gordon Holt, of London. It is clear that he has felt to the full the



inspiration of Pliny's description: the seed has fallen upon prepared ground. He takes us right back to the first century, in which Pliny was writing, and gives us a Roman villa even more complete with all its adjuncts than Pliny's description extends to. The situation of his villa might be precisely that which Pliny saw when writing—above the cliffs of a sunny sea coast and overlooking a small pleasure harbour, down which flights of steps lead from the terrace to the sea front.

"On the land side the lay-out of the gardens in the grand manner with the clear and direct approaches gives a fine effect of spaciousness and dignity which does not need to assert itself and this characterises the whole conception. Mr. Holt has adopted the style of the earlier Pompeian houses, which was much influenced by Greek feeling, and the long, low lines of his buildings give a character of unpretending dignity to which higher and more elaborate structures do not attain.

"The Græco-Egyptian detail and decoration have been well studied. It is harmonious, if the colouring seems a little too strongly applied for small scale drawings.

"The greatness of this design is in the conception of the whole, which is moreover worked out with a completeness which would make criticism of the details a work of much longer time than I should dare to occupy on this occasion. I prefer to express my admiration of the whole and of every part. Closely as Mr. Holt has followed the description of Pliny's letter he has not allowed himself to be merely instructed by it. It has served as an inspiration, but the conception is his own and marked by his own personality. He must have lived in the work as it has grown under his hands, and he has enabled us to enter into the enjoyment which his task has clearly afforded him.

"The plans give a sense of absolute reality carried out even in the delineation of the galleys in the harbour and the chariots in the stables. By singular good fortune we have this evening an opportunity of viewing side by side Mr. Holt's ideal conception with Mr. Bradshaw's beautiful drawings of his archaeological reconstruction of Praeneste, near to which, by the way, it is recorded that the younger Pliny had a villa.

"I cannot bring my observations to a close without drawing attention to the great artistic ability shown in Mr. Holt's drawings. They are executed in the manner of the School of the Architectural Association, and a high tribute is due to the unsurpassed training of the School of the Association for which I and so many of those here present must ever retain a loyal affection."

A vote of thanks having been passed to Mr. Burke Downing on the proposition of the President, the meeting terminated.

## Birmingham Architectural Association.

The seventh general meeting of the session was held at the Imperial Hotel, Birmingham, on Friday, January 28, Mr. H. T. Buckland, F.R.I.B.A., presiding.

Mr. H. E. Forrest gave a most interesting lecture entitled "The Old Houses of Shrewsbury."

Although not an architect Mr. Forrest has made a long and careful study of the architecture of Shrewsbury. Few towns in England, perhaps, have more points of historical and archaeological interest than Shrewsbury. Situated as it is on the borders of Wales it had a stirring history in early times, and until about the reign of Edward I. war was frequently brought to its very gates.

"The old houses," said the lecturer, "divide themselves naturally into three groups, according to the materials used in their construction—stone, timber, and brick. Ignoring the primitive wooden huts of the Britons and Saxons, the earliest houses were a few stone mansions dating mainly from Plantagenet times. Shropshire was rich in timber, especially oak, and in the fifteenth century, when houses began to be erected in numbers, the builders naturally adopted this as the most con-

venient material. The first timber frames were simple. They consisted of a row of vertical posts nine inches wide and nine inches apart, reaching from floor to floor. The spaces between the uprights or studs was filled in with flat pieces of lath wedged into grooves on either side, then clayed, and finished with plaster both inside and out. The Abbots House in Butcher Row is a fine example of this period, rendered all the more interesting by its perfect series of mediæval shops. Originally these were open booths, the shopkeeper sitting inside and the customer conversing with him from the street. The wide oaken sills on which the merchandise was displayed are still intact.

In Queen Elizabeth's reign the timber houses reached a very high state of perfection, many of them being lavishly ornamented.

In Shrewsbury a sunken quatrefoil seems to have been the favourite design of one particular craftsman, as it is confined to the immediate vicinity and appears on some eight or nine houses erected between 1570 and 1595—Owen's Mansion, in High Street, is a notable example.

Timber houses continued to be erected as late as the reign of Charles II. The use of bricks was at first confined to the chimney stacks of timber houses, but about 1580 a few houses with brick walls were built in Shropshire—Condover Hall is a fine example. The earliest brick house built in Shrewsbury was Rowley's Mansion in Hills Lane, which dates from 1681.

The lecture was profusely illustrated by lantern slides.

## Edinburgh Architectural Association.

MR. WILLIAM COWAN, President of Old Edinburgh Club, lectured to the Edinburgh Architectural Association last Friday in the Hall of the College of Art, Lauriston, on "Early Views and Plans of Old Edinburgh." There was exhibited a series of photographs of all the known published maps and views of Edinburgh down to the rise of the New Town; and some account was given of their origin and the circumstances of their publication. The earliest was a sketch of a castle dating from the fourteenth century, probably intended for Edinburgh. In the sixteenth century there were the drawings illustrating the attack on the town by the English in 1544; the plan showing the siege of the Castle in 1573, and the somewhat imaginary view published on the Continent in a collection of views of the principal cities of Europe. The earliest reliable plan was that executed by the Rev. James Gordon, of Rothiemay, at the instance of the Edinburgh Town Council. Two differing engravings of this were shown, and also six other views prepared by Gordon at the same time. Following two views of the city from the south by Van den Hoven and W. Hollar, the work of Captain Slezer was discussed in connection with the views appearing in the various editions of his *Theatrum Scotiae*. The principal authority for the topography of Edinburgh in the middle of the eighteenth century was the plan by William Edgar, published in 1742, and re-issued, with illustrations, in 1765. A plan published by Kirkwood, founded on surveys made in 1759, afforded information on the various properties north and south of the Old Town now covered by the modern city; and Armstrong's plan, of which at least four editions appeared between 1773 and 1787, illustrated the progress of the New Town during the earliest years of its existence.

Mr. T. P. Marwick, A.R.I.B.A., President, was in the chair, and a vote of thanks to the lecturer was moved by Dr. Thomas Ross.

SIR BANISTER F. FLETCHER, F.R.I.B.A., has been elected chairman of the City Lands' Committee, or "Chief Commoner" of the Corporation.

The death took place last week of Mr. Thomas Taylor Wainwright, F.S.I., architect and surveyor of the Old Hall, Sandfield Park, West Derby, Liverpool. The deceased gentleman retired from active practice about a year ago in consequence of ill-health.



## National Federation of Building Trade Employers.

### The Annual Meeting.

MR. STEPHEN EASTEN, O.B.E., J.P. (President), occupied the chair at the annual general meeting of the National Federation of Building Trade Employers, held on Wednesday of last week at Connaught Rooms, Great Queen Street, London, when there was an attendance of over 200 delegates.

The annual report, which was submitted by Mr. A. G. White, the Secretary, contained the following remarks on the general situation:—"The past year has been a critical and difficult one, and there have been occasions when it looked as though the Federation would be involved in conflict. Up to now wise counsels have enabled the various difficulties to be got over as they occurred, but the Council is by no means free from anxiety as to the future. Injury is threatened to the trade from various quarters, e.g., the employment of direct labour, the subsidising policy of the Ministry of Health in respect of the Guild Movement, the competition of the Office of Works, the competition for labour by outsiders, and the like. Against those may be set the fact that the demand for labour generally and even for some sections of building trade labour has fallen off, that unemployment is already rife in many industries, both making for a diminution of the demands which have been so insistent in the building trade in later years. Also, employers in all industries are now more closely connected than ever before, the need for unity becoming more fully recognised from month to month. There are indications that the era of uncertain quotations is rapidly passing, and that a condition of a real revival of industry will be firm quotations, which will imply stabilised labour and taxation conditions in industry generally. Some readjustment of wages in the building trade to approximate them more nearly to those prevailing in other industries, especially the wages of labourers, will be necessary ere this can come about. It would appear that ere long the workmen and employers in all industries will have to agree to such a stabilising of conditions as will permit firm prices to be quoted as generally as in pre-war days. If the Government would help by stabilising in its next Budget the methods of taxation and by removing the Excess Profits Duty, a firm basis for trade revival would exist."

In connection with the report, Mr. W. Moffat (Birmingham) proposed the following resolution which was carried:

"That having heard the Secretary's report of the unnecessary delays arising in the negotiations with the Royal Institute of British Architects relative to the National Building Code this Committee instructs the Administrative Committee to press forward the question of a public enquiry under the ægis of the Government in relation thereto at which the representatives of the professional bodies shall be invited to be present to discuss the building code put forward by this Federation with a view to its early settlement and operation."

It was also agreed to recommend each Federation and large town association to form a propaganda committee to bring the code into operation in their district.

#### GOVERNMENT HOUSING SCHEMES.

Mr. W. H. Nicholls (Glos.) proposed a resolution acknowledging Mr. Easten's services in connection with the Government housing schemes, and that a suitable reference should be made to his work in the annual report. The President, he said, had stood up for the building trade in a thoroughly consistent and fair manner.

Mr. A. J. Forsdike (Sheffield) in seconding the resolution said that he was sure they were all sorry that Mr. Easten, when he found he could not hold the dual position of President and an official of the Government, had felt compelled to resign his position, yet they all appreciated the very strong line he had taken up in so doing.

The resolution having been carried,

The President, in reply, said that his sole object in going to the Ministry of Health was to do his duty to the

best of his ability. It was true he had been a strong critic of the Government's housing schemes, but they having been adopted he felt he could not stand aloof. He contended that the Government had no right to subsidise one section of the community at the expense of legitimate traders such as builders, and when they added to that subsidy-monopoly promises that were going to have a detrimental effect upon people who were engaged in legitimate industry it was time they kicked hard. The policy of the Government called for the criticism and condemnation of every right-thinking man in the Kingdom. Sir Robert Horne told them they had stopped Dr. Addison going on with his full time proposals, yet in spite of that the Ministry went behind their backs and let the contracts to the Guilds on terms that had been so generally condemned. The terms offered to the guilds are double the remuneration that was given to the builder under "No. 3 Contract" and further the Guilds had especial monopoly clauses. Referring to the ex-Serviceman, the President said the trade had grave reason to complain of the Government of the way in which they had tackled the question. It was a simple duty cast upon them, and they should have taken up a firm attitude in the beginning to see that any man was allowed to take up what work he chose. No trade union would have then objected and the Government would certainly have received the support of the country. The Government went in fear of the trade unions and had adopted a most idiotic, senseless, and wicked policy. Alluding to the criticisms from outside, while he was Director of Production at the Ministry of Health, the speaker said the Guild had only proved one statement and that was in relation to the work of the bricklayers. The Guilds had boasted that the men were laying 750 bricks a day. He did not doubt it, but he knew men who were doing 1,200 bricks a day. They had proved they could not get improved output without an incentive was given to the operatives and that was bound to come sooner or later. He was pleased to say that they had been working as far as they possibly could in harmony with the Shipbuilders Federation, who had had a dispute with the joiners. Sir Alexander Kennedy, the President of the Federation, had expressed the hope that there would be some working arrangement come to between the two Federations, not for screwing down wages, but for the purpose of recognising that their industries must run side by side, as the prosperity of one depended on the other. He (Mr. Easten) was opposed to screwing down wages, but he did want to see increased output which was absolutely essential to maintain the nation's trade. They, and other trades, had got to recognise that they were producing articles at a cost that the public would not purchase, and until they remedied it, either by decreased wages or increased output, the latter for preference, they would find no solution of the difficulty.

#### THE FEDERATION AND THE INDUSTRIAL COUNCIL.

Mr. W. H. Nicholls (Glos.) speaking with reference to the allusion in the report to the work of the Industrial Council said he thought the rank and file of the builders were a little disappointed at its labours, and he moved the following resolution: "That consideration should be given to the issue of the usefulness or otherwise of the Industrial Council and the subject be referred to the Administrative Committee for consideration and report." He thought that if they expressed their sense of disappointment it might have a salutary effect upon those members of the Council who had Socialistic ideas.

Mr. R. B. Chessum (London) seconded and referred to the report of the Costs and Management Committee which he said ought never to have been published. He wished that the whole of the employers had adopted his attitude and refused to serve on the Committee. He, however, understood that the propaganda work, which had caused so much irritation and annoyance among



employers throughout the country had been cut out of the Council's consideration, and they were now deliberating upon what he hoped would be more sane proposals.

Mr. S. Smethurst (Oldham) explained that Mr. Malcolm Sparkes was responsible for writing the report and Mr. Forster, the Chairman of the Committee, accepted it. If the Guilds could do building work more cheaply, better, and efficiently, than builders they would survive. He wished the Federation had disassociated itself from that report earlier than it did. He believed the men's leaders were seeing the red light and realising the futility of many of their proposals.

Mr. E. J. Strange (Tunbridge Wells) said he hoped the Administrative Committee would consider the matter sympathetically. Personally he hoped the Industrial Council would continue.

The resolution was carried.

#### DERBY STRIKE THREAT.

Mr. F. Winterbottom (Oldham) asked whether any steps were being taken to further cohesion between master builders and plumbers.

The Secretary in reply said there had been conferences between the parties, and it was hoped to hammer out a basis of agreement.

Mr. Porter (Derby) said that in his district the master plumbers had given increased wages immediately after the award of the Midland Centre Conciliation Board. They were threatened with withdrawal of labour unless builders employing plumbers would give the increase which the master plumbers had agreed to. In loyalty to the Midland Conciliation Board they have refused to give it—(hear, hear). They had been threatened with a seven-days' notice that the whole of their employees would be withdrawn and none of them would be allowed to resume work for builders. They were also told that they would be given three weeks' notice that unless the plumbers working for builders went back into the old Association there would be a withdrawal of the whole of building labour from those builders in Derby who employed plumbers. The members would fight such an ultimatum to the last—(hear, hear). They were not quite sure whether there would be a fight, because they had not received the ultimatum officially—they had only been told it was coming. If it did come he asked the Federation to stand by Derby.

The President (amid applause) assured Derby that in the event of a fight they would have the Federation behind them.

#### NATIONAL CONCILIATION BOARD.

The President, referring to the National Conciliation Board, said that the work of the National Wages and Conditions Board, which would come into operation on May 1 next, would deal with national matters in a national manner.

After some further discussion, the report was adopted.

Mr. W. H. Nicholls (Gloucester) proposed the adoption of the accounts for the year, and it was agreed that the subscriptions for 1921 should be 1s. 1½d. per cent. on the wages bill.

Mr. H. Bryant Newbold, the newly appointed organising and editorial secretary, having been introduced by the President, said he hoped that at the end of the year he would have proved his selection. It would be his duty and privilege to do all he could to co-ordinate the existing work of the Federation.

#### VALUE OF STATISTICS.

Following upon a statement by the Secretary that the attempts last year to obtain statistics relative to the number of men and apprentices employed by members of the Federation had not proved successful, Mr. E. T. Strange (Tunbridge Wells) moved a resolution to the effect that the Administrative Committee be empowered to take the necessary steps to obtain such information, and, if necessary, make such alterations in the rules as would ensure the statistics being obtained compulsorily and regularly. He pointed out that it was essential the offices

should have the exact strength of the Federation, and it was deplorable that members should hesitate to give the information. They must realise the value of full and complete statistics.

The President said it was no use referring the matter back to the Administrative Committees if there was any real objection on the part of the members to furnishing the information.

Mr. H. Matthews (Manchester), in seconding the resolution, said he could not understand the mental attitude of any member refusing to forward the statistics. Whether they liked it or not, in all probability the future would be full of difficulties, and it was essential they should know the full strength of the Federation. They might also consider the question of the amount of wages paid in the Regional Federation, and such statistics would be very useful.

Mr. Martin (Torquay) said he thought it was more on account of apathy that the members had not furnished the information.

The resolution was agreed to.

#### LOUTH DISASTER.

It was decided, on the suggestion of the Administrative Committee, to raise £2,500 by means of a voluntary levy, excluding the Midland Federation, which had already raised a similar amount, for the purpose of assisting members of the building trade in the district who had suffered in the Louth cloud-burst disaster.

The Secretary explained that the total claims amounted to £12,078 and £5,400 had been awarded as compensation from the Mayor's Fund. The Midland Federation had subscribed £2,500.

#### STABILISING THE INDUSTRY.

On the motion of Mr. Lowry (Haslemere) seconded by Mr. F. J. Gayer (London), the following resolution was adopted, relative to Mr. J. Croad's proposals at a recent meeting of the National Conciliation Board, that if operatives and employers were to withdraw all notices for increases and decreases in wages for twelve months it would do more to stabilise the industry than any number of meetings of the Board: "That the Administrative Committee cannot approve of the course suggested by the Chairman of the National Conciliation Board acting in his independent capacity that wages should be stabilised for twelve months, there being very sound reasons that this course would be opposed to the true interests of the industry as a whole and quite in opposition to the present and future economic condition of the country."

#### TELEPHONE CHARGES.

On the motion of Mr. Woodward (Bristol) a resolution was passed protesting against the proposed increased telephone charges "as being unnecessarily high and constituting a severe charge on trade and a serious menace to the development of business in the present economic condition of the country."

#### LUXURY BUILDING.

Mr. W. Moffat (Birmingham) proposed a motion and it was carried, recommending the Government to consider, "in view of the decreased volume of building work generally," the desirability of repealing the prohibitory powers on luxury building now in operation, and suggesting that it might be done by a clause in the Bill of the Ministry of Health for continuing the subsidy.

#### BUILDERS AND OFFICE OF WORKS CONTRACTS.

Mr. E. J. Strange (Tunbridge Wells) introduced the subject of the Office of Works undertaking contracts for housing schemes, and proposed a resolution that the Federation should take steps, through Parliament or otherwise, to see that where building was undertaken by the Office of Works at the invitation of the local authority, the real cost of those schemes, including overhead charges, should be made known.

Mr. B. Rushforth (Grimsby) seconded.

There was considerable discussion on the matter, Messrs. W. Moffat (Birmingham), Mr. Friend (Rugby), and E. J. Brown (London) taking part, and it was agreed



to refer the subject to the Administrative Committee. The secretary was instructed to circularise the Regional Federations and request them to send up any reliable information they might have on the subject for the use of the Committee that was dealing with it on behalf of the National Federation.

#### ELECTION OF OFFICERS.

On the proposition of the President, seconded by Mr. E. Quibell (Hull), it was unanimously agreed that Mr. A. J. Forsdike (Sheffield) be elected President for the current year.

Mr. Forsdike, having assumed the chain of office, thanked the members for his election and paid a warm tribute to the retiring President for his services during the past year. He (the speaker) realised he had a difficult task to follow in the footsteps of Mr. Easten, but he hoped to satisfy the members. He proposed a vote of thanks to Mr. Easten for his services as retiring President, and that his name be added to the list of hon. vice-presidents.

Mr. W. H. Nicholls (Glos.) seconded the motion, which was supported by Messrs. W. Moffat (Birmingham), F. G. Hodges (Burton-on-Trent), Stanley Miller (Newcastle-on-Tyne), J. E. Meyers (Chester), and carried.

Mr. Easten acknowledged the compliment and alluded to the useful services of Mr. A. G. White, the secretary, and Mr. Wall, the assistant-secretary.

The other officers were elected as follows: *Senior Vice-President*: Mr. John Good, D.L., J.P. (Dublin); *Junior Vice-President*: Mr. W. H. Nicholls (Glos.); *Hon. Treasurer*: Mr. Jno. Croad (Gosport); *Hon. Auditors*: Mr. H. Matthews, J.P. (Manchester) and Mr. F. G. Hodges (Burton-on-Trent).

The summer meeting of the Federation will be held in Yorkshire towards the latter end of July.

### Kelvin Medal, 1920.

At a meeting of the Award Committee, consisting of the Presidents of the principal representative British engineering institutions, held in London on Tuesday, January 25, the first triennial award of the Kelvin Gold Medal was made to Dr. W. C. Unwin, F.R.S.—he being, in the opinion of the Committee, after their consideration of representations received from leading engineering bodies in all parts of the world, the most worthy to receive this recognition of pre-eminence in the branches of engineering with which Lord Kelvin's scientific work and researches were closely identified.

The arrangements for the presentation of the medal will be announced shortly.

The Kelvin Gold Medal was established in 1914 as part of a memorial to the late Lord Kelvin, and in association with the window placed in Westminster Abbey in his memory by British and American engineers.

## "The Architect" Fifty Years Ago.

FEBRUARY 4, 1871.

To bring our reflections to a close, we may be permitted to suggest what appears to be, in the view of most of our practical architects and engineers, the best ordinary course for a pupil to take. At sixteen or seventeen he should complete his College education, and at once enter an office. For four or five years he should then devote the day to the practice of office work, and the evening to the private study of theoretical professional knowledge. Passing next into the position of a salaried assistant, he should still continue his theoretical studies and investigations; and when, at length, he becomes the trusted lieutenant of a master, a comparatively short experience of the responsibilities of that position may suffice to qualify him for undertaking, with the confidence of thorough skill and experience combined, those of independent practice.

The comparison of these two modes we leave our readers to conduct for themselves. The great importance of theoretical training we dare not deny; but the greater value of practical experience is matter of common proverb. In England, if nowhere else, the comparison of a large weight of the one with a small weight of the other is more than the sober language of quantity can easily accomplish. To combine the two is, of course, an indisputable rule; but if the combination cannot be effected except at a price, there are many very sensible people who will never allow that that price should be extracted from the exchequer of practical experience. To pay for it by means of midnight oil and an aching head, and the surrender of any luxury short of respectable Sabbath rest, is one's own affair; but to sacrifice the boasted experience of the true man of business is the affair of the national reputation for "common sense as the best of sense."

The Workop Urban Council have decided to build another 166 houses on the Retford road site; altogether 488 houses are to be provided.

The National Federation of House Builders state that the Committee on cost of building working-class dwellings which has been recently formed by the Ministry of Health includes a number of gentlemen whose connection with the housing question is remote, and does not include any representative of the National Federation of House Builders. A strong protest has been addressed to the Minister by the Committee of the National Federation, with a request that one or two representative house builders should be added to that Committee.

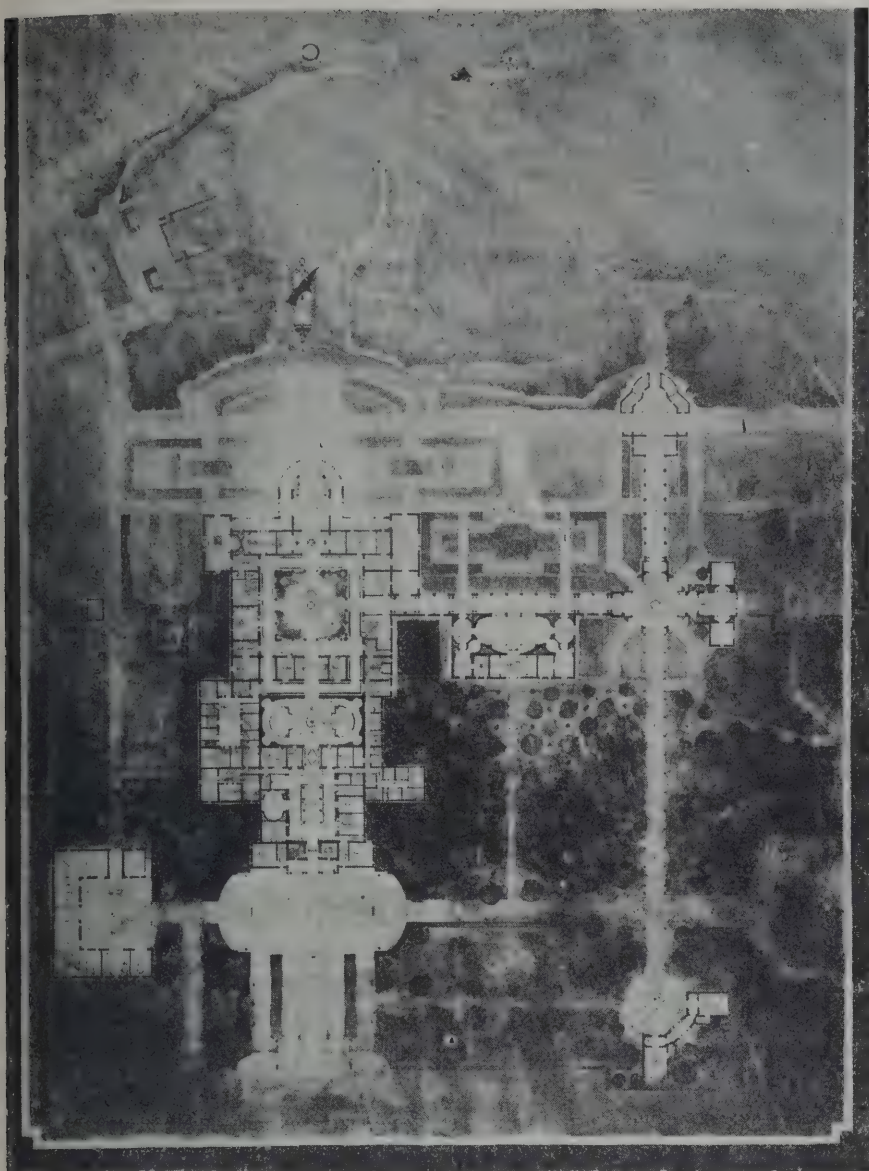
The Bolton Housing and Town Planning Committee has been overruled by the Ministry of Health on the question of the payment of a subsidy in respect of a bungalow erected at Colliers' Row. The bungalow is a wooden erection, and the Housing Committee decided not to issue certificates which are required to enable the owner to claim the Government subsidy. The Ministry sent an inspector to see the bungalow, and on his report they advised the Committee that a certificate should be granted for two-thirds of the grant of £260, but the Committee again decided not to do so. A letter from the Secretary to the Housing Commissioners has since been received, which stated that the certificates had been issued by his office.

## The Woodcote Public Utility Society, Limited.

(See p. 94.)

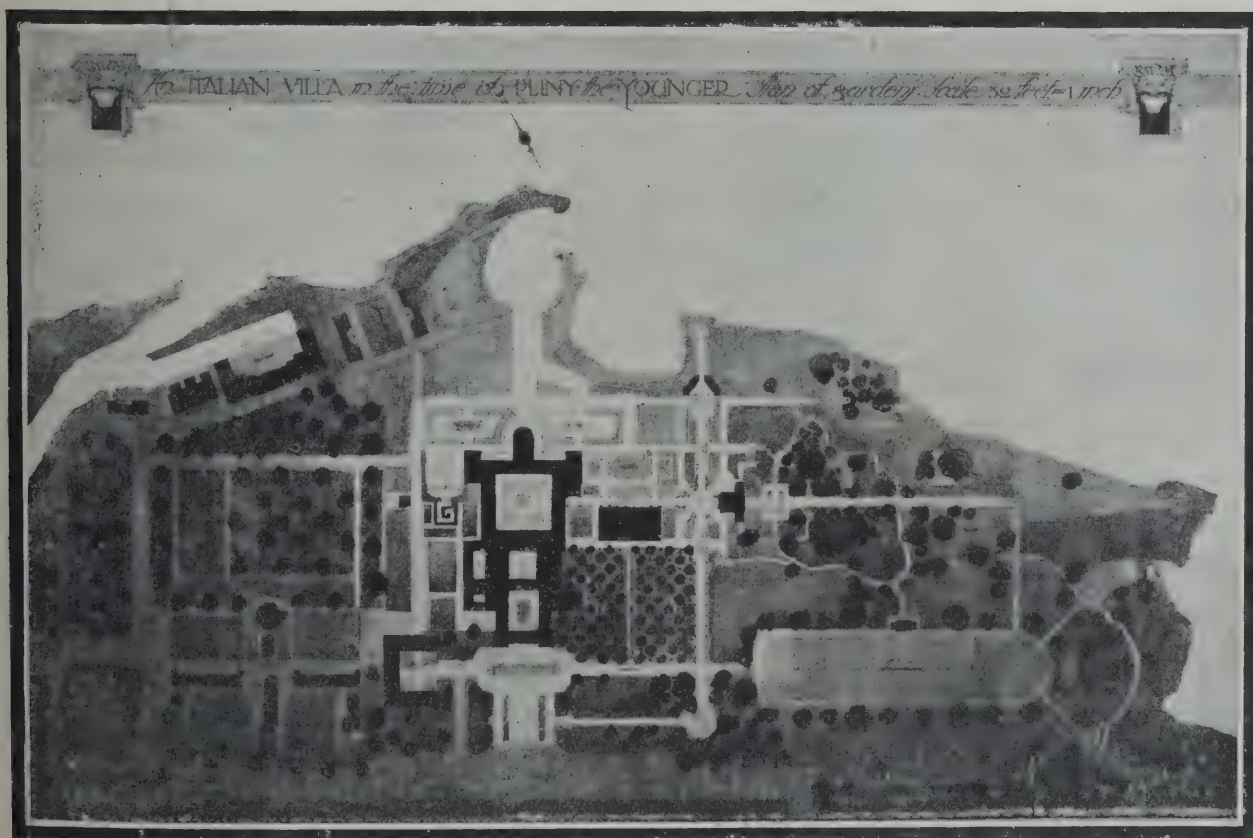






**The  
Tite Prize Winning  
Design.**

By Gordon H. Holt.





## The Destruction of Serbian Libraries.

THE Council of the Royal Institute of British Architects, on the recommendation of the Literature Committee, desire to make an appeal to members of the Institute on behalf of Serbia, whose libraries during the war were systematically dispersed or destroyed by their late adversaries. In the work of reconstruction she is largely dependent on the aid of her Allies, and gifts of books, more especially of an educational character, will be welcomed. Those who are desirous of making any contributions to the libraries are invited to send as soon as possible lists of what they are prepared to give (books on history, belles-lettres, poetry, travel, theology, philosophy, science and education, etc., in any language), stating name of book, author and publisher, and date of publication. Only books in good condition are acceptable. Those who wish to help and who cannot give books are asked to send donations towards expenses, and for the providing of books that may be missing from among the gifts. All communications should be addressed to the Hon. Organising Secretary for the Reconstruction of Serbian Libraries, The Royal Society of Literature, 2 Bloomsbury Square, London, W.C. 1.

## Prohibition of Building: Increase of Unemployment.

THE following correspondence has passed between the R.I.B.A. and the Ministry of Health:—

November 23rd, 1920.

*The Secretary, The Ministry of Health.*

SIR,—At the request of a large number of architectural bodies in the United Kingdom, the Council of the Royal Institute of British Architects have appointed a Committee who have been giving careful consideration to the effects of the restriction of building by local authorities in the interests of the National Housing scheme.

In the course of their enquiry the Committee have ascertained that certain local authorities are prohibiting the building of factories and commercial buildings which would provide means of employment when built.

My Council desire to bring this fact to the notice of the Minister of Health, and to urge him to circularise all the Local Authorities to the effect that very careful consideration should be given to cases where the stoppage of factory or commercial buildings might be a cause for increasing unemployment among work-people who would otherwise be employed therein. I have the honour to be, Sir,

Your obedient Servant,

IAN MACALISTER, *Secretary.*

*Ministry of Health, Whitehall, 6th December, 1920.*  
*The Secretary, R.I.B.A.*

SIR,—I am directed by the Minister of Health to advert to your letter of the 23rd ult., and to state that the question whether action should be taken under Section 5 of the Housing (Additional Powers) Act, 1919, to prohibit building operations which delay or are likely to delay the provision of dwelling accommodation is one for the decision of the Local Authority. The Ministry have no power to intervene except on appeal against a Prohibition Order.

I am, however, to forward for your information a copy of General Housing Memorandum, No. 22, which has been issued by the Ministry for the guidance of Local Authorities in considering cases under the Section, and to draw your particular attention to paragraph 8 (3).—I am, Sir,

Your obedient Servant,

J. C. WRIGLEY,

*for Assistant Secretary.*

Paragraph 8 (3).—"Works of High Category" will include mainly industrial buildings in private ownership which cannot be prohibited without most serious consideration. These works are such as will result in

increased employment, enhanced local revenue, enhanced national revenue (by way of export trade or otherwise) or some other result of public importance at the present time.

## Reading Society of Architects.

THE first annual meeting of the Reading Society of Architects was held in the Chamber of Commerce Meeting Room on the 19th instant, when twenty-four members were present, including Mr. Charles Steward Smith in the chair, Mr. W. Galt Millar, Mr. W. Roland Howell, Mr. H. Whiteman Rising, Mr. E. P. Morgan, Mr. H. Goodman, Mr. H. Hutt, Mr. C. B. Willcocks, Mr. F. Sainsbury, Mr. H. E. Watkinson, Mr. A. Doe, Mr. S. E. Burrett, and Mr. H. Allen, &c.

The Chairman, addressing the meeting, said that this was the first annual meeting of the newly-formed Reading Society of Architects, and that already they had thirty-five members which was a very promising start. The society should be of considerable value to the profession especially to the younger members, for whom competitions and visits to works in course of erection would be arranged. The formation of a Berks, Bucks, and Oxon Architectural Association was being considered, and it was expected would be organised shortly.

Mr. H. Whiteman Rising gave an interesting description of the library which is to be formed, and which should be very useful to the members of the society. Mr. Rising said that it was proposed to form both a reference and a loan library of books on architecture, and that he would be glad to hear from all members who would lend or give books to the Society.

The Council for the coming year were elected as follows: *President*, Mr. Charles Steward Smith F.R.I.B.A.; *Vice-Presidents*, Mr. W. Galt Millar F.S.I., Mr. W. Roland Howell, F.R.I.B.A.; *Treasurer* Mr. J. H. Goodman; *Hon. Librarian*, Mr. H. Whiteman Rising, F.R.I.B.A.; *Hon. Secretary*, Mr. C. B. Willcocks F.R.I.B.A.; *Members*, Mr. F. G. Sainsbury, M.S.A., Mr. W. J. Freeman, A.R.I.B.A., Mr. H. E. Watkinson F.S.I.

Mr. E. K. Morris, Licentiate R.I.B.A., and Mr. S. Cox, M.S.A., were elected honorary auditors.

The following gentlemen were elected honorary members of the Society: The Mayor (Councillor Denys Egginton), Lt.-Col. Leslie Wilson, M.P., Mr. Charles E. Keyser, Rev. P. H. Ditchfield, Mr. Leonard Sutton, Dr. Jamieson B. Hurry, and Mr. H. H. Wallis.

## Forthcoming Events.

*Saturday, February 5.*—Architectural Association.—Visit to St. James' Palace.

*Monday, February 7.*—Surveyors' Institution.—Meeting at 12 Great George Street, Westminster. Paper by Mr. Arthur H. Davis, F.S.I., entitled "The Acquisition of Land for Public Purposes in Egypt." 8 P.M.

*Tuesday, February 8.*—Liverpool Architectural Society.—Meeting at 13 Harrington Street. Paper by Mr. W. J. Locke entitled "The Solidarity of Art." 6 P.M.

—Institution of Civil Engineers.—Meeting at Great George Street, Westminster. Discussion on papers entitled "Cannon Street Bridge Strengthening" by Mr. G. Ellson M.Inst.C.E., and "Reconstruction of a Viaduct" by Mr. F. W. A. Handman. 5.30 P.M.

—Surveyors' Institution.—Annual Dinner at the Connaught Rooms, Great Queen Street, W.C. 7 P.M.

*Wednesday, February 9.*—Royal Society of Arts. Meeting at John Street, Adelphi, W.C. Paper by Mr. William Rothenstein, Principal Royal College of Art, entitled "Possibilities for the Improvement of Industrial Art in England." 8 P.M.

*Friday, February 11.*—London Society.—Meeting at Royal Society of Arts, John Street, Adelphi. Paper by Mr. Thomas Wilson (Clerk of Works to the Houses of Parliament) entitled "The History of the Houses of Parliament." 4.30 P.M.

THE will of the late Mr. R. Holland, builder, of Salford Manchester, has been proved at £44,263.



## MODERN PLANT FOR DISPOSAL

*Surplus Mechanical and Chemical Plant, the property of Nobel Industries, Limited, is available for disposal. The list includes Steam, Gas & Oil Engines; Locomotives, Boilers, Air Compressors, Fans & Heaters, Pumps, Shafting, Pulleys and Weighing Machines. Also Buildings of Steel, Wood & Brick*

Descriptive Pamphlets will be sent with  
**FULL PARTICULARS  
ON APPLICATION**  
Write or Telephone—Victoria 4299

**NOBEL INDUSTRIES LTD.**  
PLANT SALES DEPARTMENT  
5 Palace Street, LONDON, S.W.1

Used by the world's greatest writers.

## Waterman's (Ideal) Fountain Pen

**Sir Philip Gibbs,**

Editor of "Review of Reviews," wrote his famous war despatches with a Waterman's Ideal Fountain Pen. His warm regard for the world's Best Pen is expressed in the following note:—

"I have a high regard for Waterman's Ideal Pen, which was a faithful friend of mine in the war."

Three Types: "Self-filling" and "Safet," 17/5 and upwards; "Regular," 12/6 and upwards. No. 54, "Self-filling" and No. 44, "Safet," with extra large nib, at 22/6, specially recommended. Presentation Pens in

Silver and Gold. Of Stationers and Jewellers. Gold Nibs to suit all hands—willingly exchanged if not quite right. A copy of "The Pen Book," a charming illustrated brochure, sent free by post on request.

L.G. Sloan, Ltd., The Pen Corner,  
Kingsway, London, W.C. 2.



Platers' Shed at Large Shipbuilding Yard, coated with "Bitumastic" Solution.

## "BITUMASTIC"

Regd. Trade Mark.

**Lengthens Life of Steel and Iron Structures by Preventing Rust.**

It lasts longer, dries quicker, goes much further, and costs less than oil paints. Although hitherto obtainable in Black only; Red, Brown, and Green shades can now be supplied possessing the lasting qualities of the Black, with the additional advantage of permanent colour.

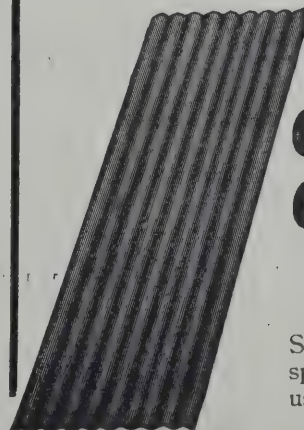
## WAILES DOVE BITUMASTIC LTD.,

NEWCASTLE-ON-TYNE, London, Liverpool, Glasgow, Leeds, Manchester, Birmingham, Hull, Cardiff, Dublin, New York, etc.

Telegrams: "Bitumastic."

Telephones in Every Office.

## LYSAGHT'S "ORB" Brand



## GALVANIZED CORRUGATED SHEETS.

Sheets bearing this brand are specially manufactured for use in the

## construction of PERMANENT BUILDINGS.

They are given a heavy protective coating of zinc to ensure long service.

Engineers and architects can rely upon these being the finest quality obtainable.

Manufactured by  
**JOHN LYSAGHT, LIMITED,**  
BRISTOL

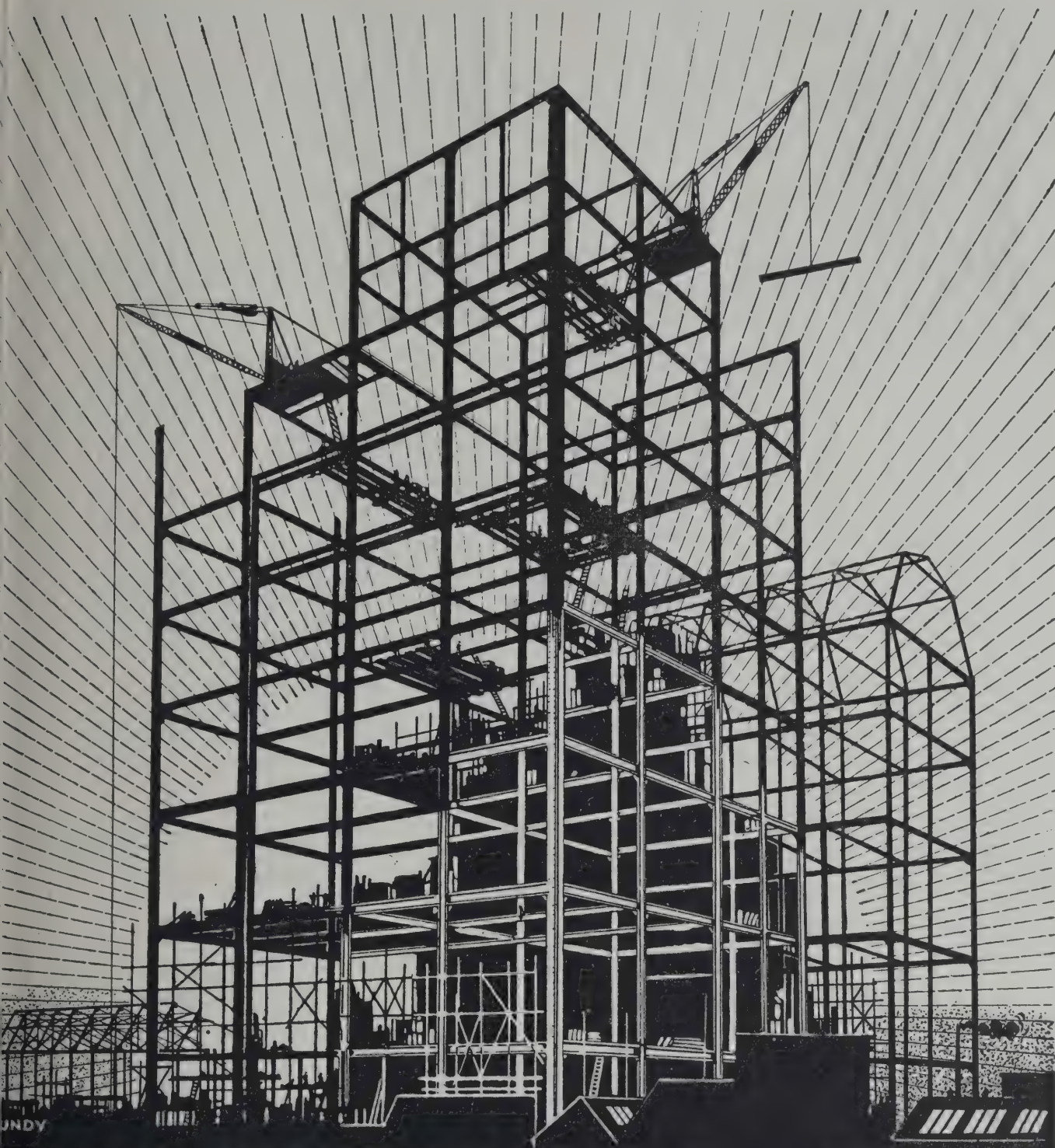
## Architects' Benevolent Society.

## Recent Appeal.

## SECOND LIST OF NEW SUBSCRIBERS, INCREASED SUBSCRIPTIONS, AND DONATIONS.

NAME	New Subs.	Increased Subs.	Donations.	NAME	New Subs.	Increased Subs.	Donations.
£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
Inge'ow, Benjamin (London) ...	—	—	2 2 0	Philpot, S. (Tunbridge Wells) ...	1 1 0	—	—
Innocent, Mr. C. F. & Mrs. C. J. (Sheffield) ...	—	—	2 2 0	Pictor, A. J. (Bruton) ...	1 1 0	—	—
Jackson, T. Gordon (London) ...	1 1 0	—	—	Pinchard, C. H. B. (London) ...	1 1 0	—	—
Jackson, M. T. E. (London) ...	—	2 2 0	—	Plymouth, The Rt. Hon. the Earl of (London) ...	1 1 0	—	—
James, J. W. (London) ...	—	—	—	Portsmouth, H. C. (Swansea) ...	1 1 0	—	—
Jamieson, E. A. (Edinburgh) ...	2 2 0	—	—	Potter, T. J. (London) ...	1 1 0	—	—
Jarvis, J. W. (Birmingham) ...	1 1 0	—	—	Potter, H. J. (Sheffield) ...	—	—	1 1
Jenkinson, J. M. (Sheffield) ...	1 1 0	—	—	Potts & Hennings, Messrs. (Manchester) ...	2 2 0	—	—
Jordan, J. & Son (Edinburgh) ...	1 1 0	—	—	Potts, J. (Newcastle) ...	0 10 6	—	—
Jones, F. (Jr.) (Manchester) ...	—	—	1 1 0	Powell, R. S. (London) ...	1 1 0	—	—
Jones, A. (London) ...	1 1 0	—	—	Powell, E. Turner (London) ...	—	—	3 3 0
Jones, Norman (Southport) ...	1 1 0	—	—	Prescott, O. (Southport) ...	1 1 0	—	—
Jones, W. Campbell (London) ...	—	—	10 10 0	Prosser, D. S. (London) ...	0 10 6	—	—
Jones, A. S. (London) ...	1 1 0	—	—	Protherm, F. (London) ...	1 1 0	—	—
Jones, J. Fox & J. T. Penfold (London) ...	—	—	1 1 0	Quéré, H. C. (Jersey) ...	—	—	1 1 0
Jones, S. R. (London) ...	1 1 0	—	—	Raffles, W. H. (London) ...	1 1 0	—	—
Keen, Arthur (London) ...	1 1 0	—	2 2 0	Reavell, G. & W. A. Tebbis (Inwick) ...	—	2 2 0	—
Keppie & Henderson, Messrs. (Glasgow) ...	2 2 0	—	—	Rees & Holt, Messrs. (Liverpool) ...	—	—	2 2 0
Kennard, J. Moir (London) ...	—	—	2 2 0	Rickards, P. E. (London) ...	1 1 0	—	—
Kerr, R. H. (London) ...	1 1 0	—	—	Rienaecker, V. G. (London) ...	1 1 0	—	—
Keyte, J. R. (Birmingham) ...	1 1 0	—	—	Rimington, F. (Liverpool) ...	1 1 0	—	—
Kislingbury, A. V. (London) ...	1 1 0	—	—	Roberts, A. (London) ...	—	—	2 2 0
Kitchen, L. (Hull) ...	—	—	1 1 0	Roberts, R. M. (Warrington) ...	1 1 0	—	—
Ladds, S. Inskip (Huntingdon) ...	1 1 0	—	—	Robertson, A. R. (London) ...	1 1 0	—	—
Laing, H. G. M. (London) ...	—	1 1 0	—	Robertson, D. (Dumfries) ...	1 1 0	—	—
Lamb, E. B. (London) ...	1 1 0	—	—	Robertson, H. M. (London) ...	1 1 0	—	5 5 0
Lamb, H. A. J. (London) ...	1 1 0	—	—	Romaine-Walker, W. H. (London) ...	1 1 0	—	—
Lander, H. O. (Letchworth) ...	1 1 0	—	—	Ross, W. H. (London) ...	1 1 0	—	—
C. S. L. (Leicester) ...	—	—	1 1 0	Rowntree, F. (London) ...	1 1 0	—	—
Langley, W. J. (Northampton) ...	—	—	1 1 0	Rowbotham, H. A. (New Malden) ...	1 1 0	—	—
Lansdown & Brow: (London) ...	2 2 0	—	—	Rowell, E. B. (London) ...	1 1 0	—	—
Lansdell, M. J. (Hastings) ...	1 1 0	—	—	Russell, S. B. (Gosmore, r. Hitchin) ...	1 1 0	—	—
Lawson & Reynolds, Messrs. (Bournemouth) ...	2 2 0	—	—	Ruthen, Sir Charles (London) ...	—	—	3 3 0
Lawson, V. A. (Gloucester) ...	1 1 0	—	—	Ryde, F. C. (Weybridge) ...	—	—	3 3 0
Leathart, J. R. (London) ...	1 1 0	—	—	Sadgrove, E. J. (London) ...	1 1 0	—	3 3 0
Leather, J. A. (Sheffield) ...	1 1 0	—	—	Sampson, N. W. (Sidmouth) ...	1 1 0	—	—
Lees, O. W. Parkin (Povey) ...	1 1 0	—	—	Sawday, A. E. (Leicester) ...	1 1 0	—	—
Lethbridge, G. (London) ...	—	—	3 3 0	Scaife, W. H. (Newcastle) ...	1 1 0	—	—
Levie, Daniel A. (Cork) ...	1 1 0	—	1 1 0	Schofield, W. F. (Leeds) ...	1 1 0	—	—
Lewis, S. (London) ...	1 1 0	—	—	Scott, G. Gilbert, A. R. A. (London) ...	1 1 0	—	—
Lewis, D. (Newport) ...	1 1 0	—	—	Scott, A. (London) ...	1 1 0	—	—
Lewis, W. A. (London) ...	—	2 0 0	—	Scott, W. Gilbee (London) ...	—	2 2 0	2 2 0
Lidbetter, H. (London) ...	1 1 0	—	—	Scott-Moncrieff, W. W. (London) ...	1 1 0	—	—
Lish, J. J. (Grange-over-Sands) ...	1 1 0	—	—	Scotto, H. C. (London) ...	—	—	1 1 0
Lister, B. T. (Liverpool) ...	1 1 0	—	—	Searle & Searle & Allen, Messrs. (London) ...	—	—	1 15 0
Lloyd, J. A. (Cardiff) ...	1 1 0	—	—	Sears, J. E. (London) ...	1 1 0	—	—
Longbottom, W. W. (Hilfax) ...	1 1 0	—	—	Seth Smith & Monro, Messrs. (London) ...	—	—	1 1 0
Longdon, R. T. & W. J. Venables (Leek) ...	2 2 0	—	—	Sharpe, T. W. (Snaith) ...	1 1 0	—	—
Lumb & Walton, Messrs. (Blackpool) ...	2 2 0	—	—	Shepherd, G. (Dundee) ...	1 1 0	—	—
Lyon, Maurice (Cairo) ...	1 1 0	—	—	Shepherd, J. C. (Freshfield) ...	1 1 0	—	—
Maggs, L. (Nottingham) ...	1 1 0	—	—	Shennan, T. E. (Liverpool) ...	—	2 2 0	—
Macalister, A. P. (Cambridge) ...	—	—	3 3 0	Shuffrey, L. A. (London) ...	1 1 0	—	—
Mackenzie, A. E. H. (London) ...	1 1 0	—	—	Sidwell, H. T. (Rayleigh) ...	1 1 0	—	—
Mackey, S. A. H. (Warrington) ...	1 1 0	—	—	Sifton, J. T. (London) ...	1 1 0	—	—
MacLennan, T. F. (Edinburgh) ...	—	—	1 1 0	Silcock, P. (Warrington) ...	1 1 0	—	—
Manning, H. C. H. (London) ...	—	—	1 1 0	Sills, E. H. (Peterborough) ...	1 1 0	—	—
Marks, P. (London) ...	1 1 0	—	—	Simpson, J. W., P.R.I.B.A., & Maxwell Ayton (London) ...	—	—	22 1 0
Marsland, E. (London) ...	—	—	1 1 0	Sladdin, T. (Jersey) ...	1 1 0	—	—
Marten, W. H. H. (Leeds) ...	1 1 0	—	—	Smee, F. (London) ...	1 1 0	—	—
Martin, L. (London) ...	2 2 0	—	—	Smith, A. (Stratford) ...	2 2 0	—	—
Marwick, T. P. (Edinburgh) ...	—	—	1 1 0	Smith, A. W. (Maldstone) ...	2 2 0	—	—
Matcham, Frank & Co. (London) ...	1 1 0	—	—	Smith, E. (Neath) ...	1 1 0	—	—
Mathews, R. E. (London) ...	1 1 0	—	—	Smith, H. (London) ...	1 1 0	—	—
Maufe, E. (London) (two years) ...	2 2 0	—	—	Smith, J. Llewellyn (Aberdare) ...	—	—	1 0 0
Maut, E. J. (London) ...	—	—	1 1 0	Smith, J. O. ...	—	1 1 0	—
Maxwell, W. C. (Belfast) ...	1 1 0	—	—	Smith, S. E. (Leeds) ...	—	—	2 2 0
Maxwell, H. P. (Pocklington) ...	1 1 0	—	—	Soissons, L. de (London) ...	1 1 0	—	2 2 0
May, E. J. (London) ...	—	—	1 1 0	Solomon, D. L. (London) ...	1 1 0	—	—
McLauchlan, S. (Liverpool) ...	1 1 0	—	—	Southall, W. (Bretford) ...	1 1 0	—	—
Meredith, P. W. (London) ...	1 1 0	—	—	Spalding, R. H. (London) ...	1 1 0	—	—
Mitchell, J. D. (Chiswick) ...	1 1 0	—	—	Stainer, W. (London) ...	1 1 0	—	—
Migotti, A. (London) ...	1 1 0	—	1 1 0	Steele, M. (Bo'ness) ...	—	—	1 1 0
Milburn, W. (Sunerland) ...	1 1 0	—	—	Steel, J. (Wishaw) ...	1 1 0	—	—
Millard, W. J. W. (Hitchin) ...	1 1 0	—	—	Stenner, W. J. (Bristol) ...	1 1 0	—	—
Miller, B. A. (Birkenhead) ...	1 1 0	—	—	Stevenson, Capt. E. E. (London) ...	1 1 0	—	—
Miller, C. W. (Stafford) ...	1 1 0	—	—	Stocks & Sykes, Messrs. (Huddersfield) ...	1 1 0	—	—
Milne, O. P. (London) ...	1 1 0	—	—	Stokes, E. E. (Liverpool) ...	1 1 0	—	—
Mills, J. D. (Dunfee) ...	1 1 0	—	—	Stokes, A. P. (London) ...	1 1 0	—	—
Misselbrook, G. T. (Sheerness) ...	—	—	0 10 6	Sturdy, F. J. (London) ...	—	2 2 0	—
Mitchell, C. G. (London) ...	1 1 0	—	—	Sutherland & George, Messrs. (Aberdeen) ...	2 2 0	—	—
Mitchell, G. B. (Aberdeen) ...	—	—	1 1 0	Sutton, B. H. (Lambourne) ...	1 1 0	—	—
Monson, E. C. P. (London) ...	—	—	10 0 0	Swann, W. (Stockport) ...	1 1 0	—	—
Moore, Louis (Berkhamsted) ...	1 1 0	—	—	Sullivan, L. Sylvester (London) ...	1 1 0	—	—
Moore, C. H. (Basingstoke) ...	1 1 0	—	—	Syms, R. Hardy (Isleworth) ...	1 1 0	—	—
Moss, H. E. (London) ...	1 1 0	—	—	Tanner, E. J. (London) ...	1 1 0	—	—
Mossman, T. R. W. (London) ...	1 1 0	—	—	Tanner, D. G. (Birmingham) ...	1 1 0	—	—
Mundy, T. E. (Essex) ...	1 1 0	—	—	Tasker, A. K. (Newcastle) ...	1 1 0	—	—
Murray, C. H. (Eastbourne) ...	1 1 0	—	—	Taylor, A. S. (London) ...	—	—	1 1 0
Murrell & Pigot, Messrs. (London) ...	2 0 0	—	—	Taylor, A. J. (Bath) ...	1 1 0	—	—
Naish, S. (Bury St. Edmunds) ...	1 1 0	—	—	Tebbutt, Mrs. L. K. (London) ...	—	—	1 1 0
Nash, W. Hilton (London) ...	—	—	5 5 0	Terry, E. Hardwick (London) ...	1 1 0	—	—
Newton, Col. W. G. (London) ...	1 1 0	—	—	Theakston, E. G. (Bucks) ...	1 1 0	—	—
Neild, G. E. (London) ...	1 1 0	—	2 2 0	Thistle, T. O. (London) ...	1 1 0	—	—
Neill, A. (Leeds) ...	—	—	3 3 0	Thomas, W. N. (Headington) ...	—	—	1 1 0
Newman, D. (London) ...	1 1 0	—	—	Thomson, W. A. (Glasgow) ...	1 1 0	—	—
Nicholson, G. M. (London) ...	1 1 0	—	—	Tickner, T. F. (Coventry) ...	1 1 0	—	—
Nightingale, F. B. (London) ...	1 1 0	—	—	Timbs, R. P. (Derby) ...	1 1 0	—	—
Norman, G. H. (Watford) ...	1 1 0	—	—	Tomkins, S. E. (Cotes) ...	1 1 0	—	—
Oldrieve, W. T. (Edinburgh) ...	1 1 0	—	—	Townend, T. (Rochdale) (two years) ...	2 2 0	—	—
Ough, A. H. (Dawlish) ...	1 1 0	—	—	Tracy, B. D. (London) ...	—	—	0 10 0
Parker, A. S. (Plymouth) ...	1 1 0	—	—	Trehear, E. H. F. (London) ...	1 1 0	—	—
Parry, S. G. (London) ...	1 1 0	—	—	Treleaven, M. V. (Bude) ...	1 1 0	—	—
Parsons, F. B. (Birmingham) ...	—	—	2 2 0	Trimmell, H. C. (Woldingham) ...	1 1 0	—	—
Patonson, A. N. (Glasgow) ...	1 1 0	—	—	Troup, F. W. (London) ...	2 2 0	—	—
Peach, C. S. (London) ...	—	—	2 2 0	Tubbs & Messer, Messrs. (London) ...	2 2 0	—	—
Pearson, L. G. (London) ...	1 1 0	—	—	Tubbs, Percy B. (London) ...	2 2 0	—	—
Pearson, C. B. (Lancaster) ...	—	—	1 1 0	Tugwell, S. (Bournemouth) ...	1 1 0	—	—
Pearson, J. (Kewick) ...	1 1 0	—	—	Tulloch, F. H. (Belfast) ...	1 1 0	—	—
Penton, J. (Stamford) ...	1 1 0	—	—	Turner, P. J. (Montreal) ...	1 1 0	—	—
Petter, J. (Yeovil) ...	1 1 0	—	—	Turner, H. G. (London) ...	1 1 0	—	—
Phillips, G. R. (London) ...	1 1 0	—	—	Venner, A. W. (Redhill) ...	1 1 0	—	—
				Venning, H. J. (London) ...	1 1 0	—	—
				Vowles, T. H. H. (Benningborough) ...	—	—	1 1 0





# REDPATH BROWN & CO. LTD.

## CONSTRUCTIONAL ENGINEERS

LONDON  
Riverside Works,  
East Greenwich S.E.

WORKS AND STOCKYARDS  
MANCHESTER  
Trafford Park.  
BIRMINGHAM  
Office: 47, Temple Row.

EDINBURGH  
St Andrew Steel Works.  
NEWCASTLE-ON-TYNE  
Milburn House.

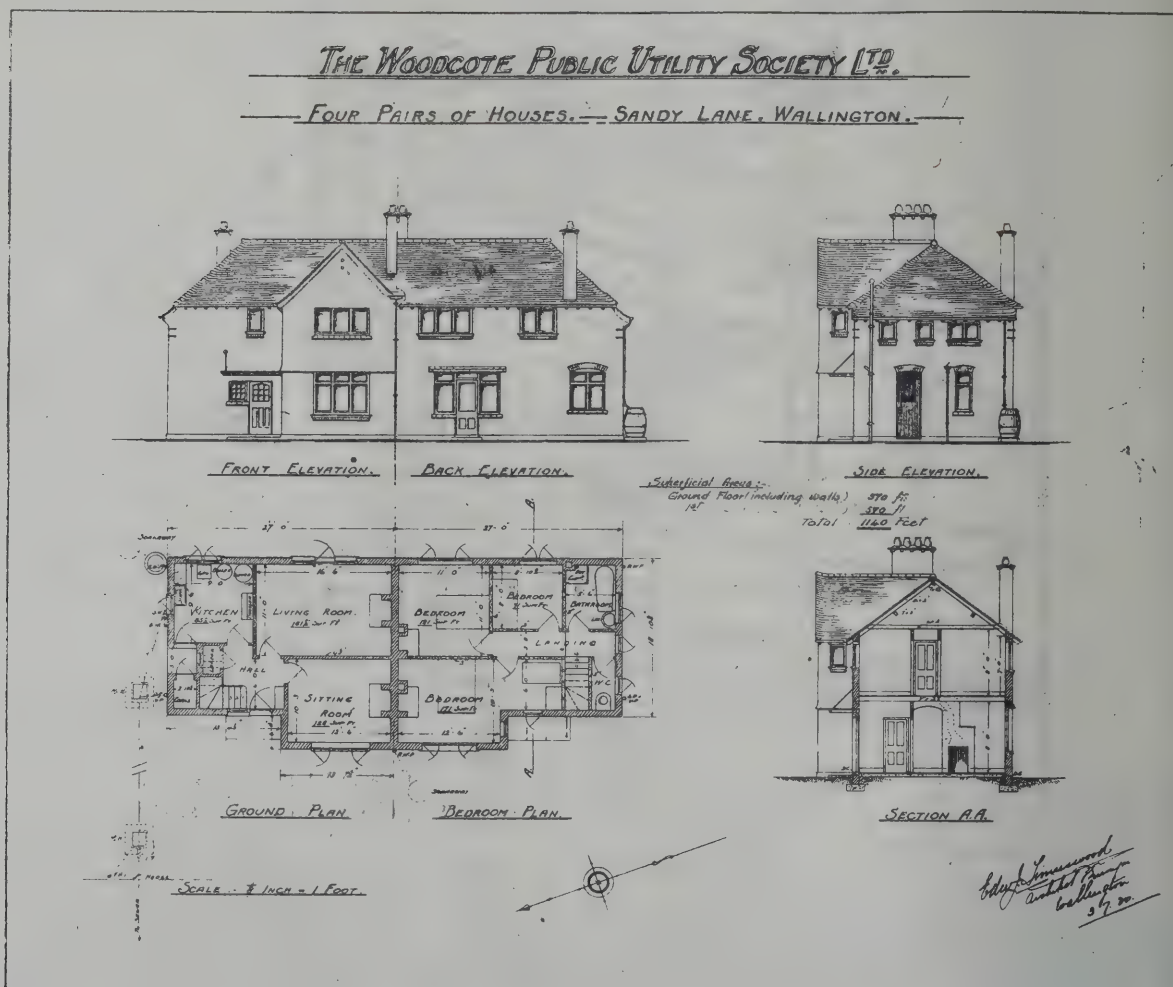
GLASGOW  
Pinkston.  
Office 19, Waterloo St

London City Office: 3, LAURENCE POUNTNEY HILL E.C.4



SECOND LIST OF NEW SUBSCRIBERS, INCREASED SUBSCRIPTIONS, AND DONATIONS.—(Continued.)

NAME	New Subs.		Increased Subs.		Donations.		NAME	New Subs.		Increased Subs.		Donations.	
	£	s. d.	£	s. d.	£	s. d.		£	s. d.	£	s. d.	£	s. d.
Waddington, F. T. (Blackpool) ...	0	10 6	—	—	—	—	Wiles, J. G. (Richmond) ...	1	1 0	—	—	—	—
Waddington, H. G. (Blackpool) ...	0	10 6	—	—	—	—	Willecks, O. B. (Reading) ...	1	1 0	—	—	—	—
Wadman, P. J. (London) ...	1	1 0	—	—	—	—	Williams, F. E. (London) ...	—	—	—	—	1	1 0
Walcot, W. (Oxford) ...	2	2 0	—	—	—	—	Williams, S. (Ardiff) ...	1	1 0	—	—	1	1 0
Walker, B. (Brdington) ...	1	1 0	—	—	—	—	Williamson, L. (Loughton) ...	1	1 0	—	—	—	—
Walker, P. (Higher Penshaw) ...	—	—	1	1 0	—	—	Williamson, W. (Kirkaldy) ...	1	1 0	—	—	—	—
Ward, F. Bur ett (Wisbech) ...	—	—	—	—	1	0 0	Wills, F. R. Gould (London) ...	1	1 0	—	—	—	—
Ward, J. Neville (London) ...	1	1 0	—	—	—	—	Wills, G. Berkeley (London) ...	1	1 0	—	—	—	—
Wardill, R. W. (London) ...	1	1 0	—	—	—	—	Wills, J. B. (Bristol) ...	—	—	—	—	1	1 0
Wardle, J. W. (York) ...	2	2 0	—	—	—	—	Willis, J. H. (Constantinople) ...	1	1 0	—	—	—	—
Warman, P. J. (London) ...	1	1 0	—	—	—	—	Wilson, F. F. Munro (Kingston-on-Thames) ...	—	—	—	—	1	0
Warrington Slate Company ...	—	—	—	—	5	0 0	Wilson, R. (W. Wickham) ...	1	1 0	—	—	—	—
Waterhouse, Michael (London) ...	1	1 0	—	—	—	—	Windsor, F. (Croydon) ...	1	1 0	—	—	—	—
Watkin, E. (Stoke-on-Trent) ...	1	1 0	—	—	—	—	Wood, E. (Manchester) ...	1	1 0	—	—	—	—
Watney, Denny (London) ...	—	—	2	2 0	—	—	Wood, J. (Buckie, Banffshire) ...	1	1 0	—	—	—	—
Weaning, S. J. (Norwich) ...	1	1 0	—	—	—	—	Woodroffe, W. H. (London) ...	1	1 0	—	—	—	—
Webb, Sir A. ton, P.R.A., K.C.V.O. (London) ...	—	—	—	—	26	5 0	Woolle, W. E. (London) ...	—	—	—	—	0	5 0
Wells, F. H. E. (Aldershot) ...	1	1 0	—	—	—	—	Worsley, A. H. (London) ...	—	—	—	—	1	1 0
West, A. W. (London) ...	1	1 0	—	—	—	—	Worthington, J. H. (Manchester) ...	1	1 0	—	—	—	—
Westwood, P. J. (London) ...	1	1 0	—	—	—	—	Wright & Hamlyn (Warrington) ...	2	2 0	—	—	—	—
Wheatley, W. B. (Hull) ...	1	1 0	—	—	—	—	Wrinch, Raymond C. (Ipswich) ...	1	1 0	—	—	—	—
Whimster, H. N. (Hele sburgh) ...	1	1 0	—	—	—	—	York & E. Yorkshire Architectural Society ...	—	—	—	—	3	3 0
Whitbur e, H. J. A. (Woking) ...	0	10 6	—	—	—	—	Young, Keith D. (London) ...	1	1 0	—	—	—	—
Whitelaw, C. E. (London) ...	1	1 0	—	—	—	—	Young, W. C. (Manchester) ...	1	1 0	—	—	—	—
Wilding, J. (Runcorn) ...	1	1 0	—	—	—	—							



THE Woodcote Public Utility Society, Ltd., has been formed by a few Wallington residents and their friends, eight in number, under the provisions of the Friendly Societies Acts, for the purpose of building houses for their own occupation in the locality, under the regulations formulated by the Ministry of Health.

An open site of nearly one and a-quarter acres has been secured by the Society in Sandy Lane, Wallington, for the first part of its scheme, comprising four pairs of semi-detached houses, and these are now in course of erection.

Each plot has a frontage of 37 feet 6 inches, and an average depth of about 180 feet.

The houses are known as Type B, being limited, among other restrictions, to a total area on all floors, including walls, &c., of not more than 1,150 superficial feet.

The work is being carried out by Messrs. David King, Ltd., builders, Ruskin Road, Carshalton, at their revised tender of £1,066 10s. per house, of which sum £1,045 per house, plus professional fees on the whole cost of the scheme, ranks for subsidy.

The cost of the land was £112 per plot, of which £105 ranks for subsidy.

The plans and specification, &c., have been prepared by Mr. E. J. Tinniswood, architect and surveyor of Marchmont Road, Wallington.

As illustrating the value of these schemes it is interesting to note that under the Ministry of Health Regulations for the sale of houses by Public Utility Societies it will be possible for the occupier of any of these houses to acquire his house freehold during the current financial year for a sum of about £800.



# JAMES GIBBONS, LTD.

ST. JOHN'S WORKS

WOLVERHAMPTON

## GIBBONS' "COTTAGE" WINDOW WITH PATENT SLIDING SASH

British Patents Nos. 12630/18 ; 123903/18 and 5535/19. Also patented in U.S.A., France, Belgium, Australia, New Zealand, Canada, India and South Africa.

Light in  
Construction  
and Fireproof.



Standard Sizes  
from  
Stock.

All outside surfaces easily cleaned from the inside of the rooms, the sliding portion hinged to open inwards and fitted with attachment for locking the casement when partly opened for ventilation.

The first  
Cottages in  
Great Britain  
completed  
under the  
Government  
Housing  
Scheme,  
showing  
Gibbons'  
"Cottage"  
Windows  
fixed.



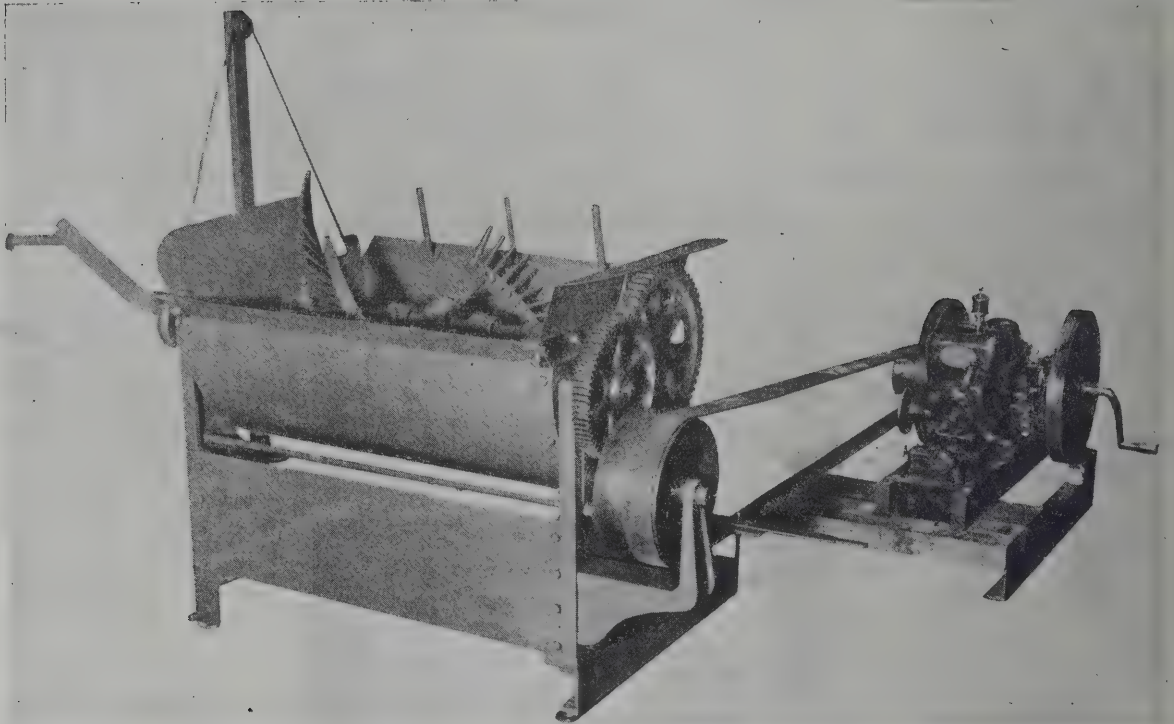
These  
Cottages  
are also fitted  
throughout  
with Gibbons'  
Locks and  
Furniture.

FULL PARTICULARS ON APPLICATION.

London Office : 15 & 16 FISHER STREET, SOUTHAMPTON ROW, W.C.1.



## The Tonkin Concrete Mixer.



THE TONKIN MIXER WITH ENGINE.

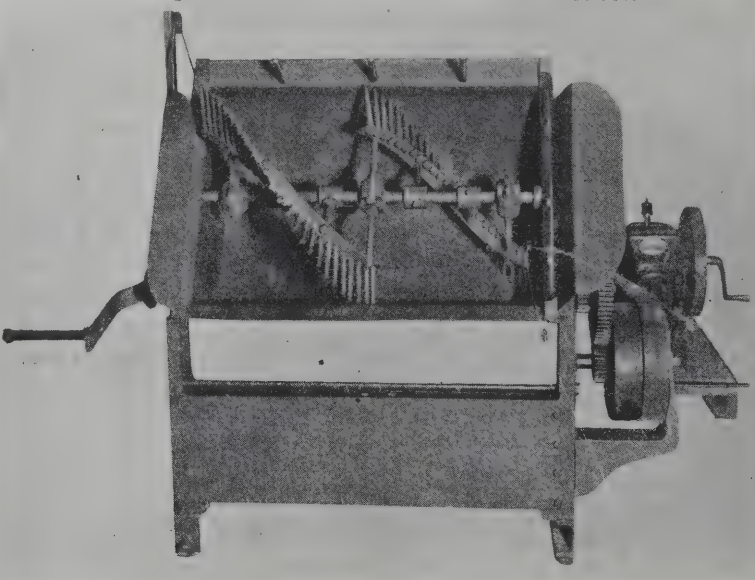
THE Australia Concrete Block Machine Syndicate have brought out and patented one of the best block-making machines which have ever been put on the market, as it can be used by unskilled labour and on isolated sites, and the blocks made lend themselves to a peculiarly ingenious form of construction which ensures a satisfactory hollow wall. The machine is also one the cost of which is so moderate that small contractors need not hesitate to acquire it, and so strong and simple that it can hardly be damaged, as well as so light that it can be transported from site to site without difficulty. But one of the drawbacks to concrete construction without

an actual demonstration, we can bear testimony that the claims made for it are fully justified. It may be described in a nutshell as being in the field of concrete mixing as efficient and serviceable as the Australia Concrete Block Machine is in the production of block-making; the one machine fills, in fact, a similarly useful rôle as the other.

Its cost is equally small, as the machine is sold for £50, or with power attachments for £60, while complete with an engine the price is £100. It is pre-eminently a mixer, and can be used for tar macadam and similar materials, as for concrete. Like the block machine, it is easily worked by hand, and, like the block machine,

it is light, portable, and practically cannot be damaged. The process of mixing can be best understood from the illustrations given, and is effected by two revolving rakes, which thoroughly mix every particle of the aggregate, working it from the sides to the centre, the two portions of the aggregate being thus mixed together. The contents are mixed in each revolution, and there are twenty-five such revolutions in a minute. The rakes enable the machine to be used with a minimum amount of power, as their placing and arrangement take place in the direction of the revolution of the drum. Some twelve revolutions suffice to mix a load of concrete, which is discharged at the lower side of an inclined way. When driven by power the machine never need be stopped or restarted, and the machine has a capacity of three cubic feet per load. As much as ninety cubic feet of concrete have been mixed by it in an eight-hour day.

Whether for hand- or power-driving, this machine can be recommended with confidence as being one of the most serviceable and efficient we have ever seen.

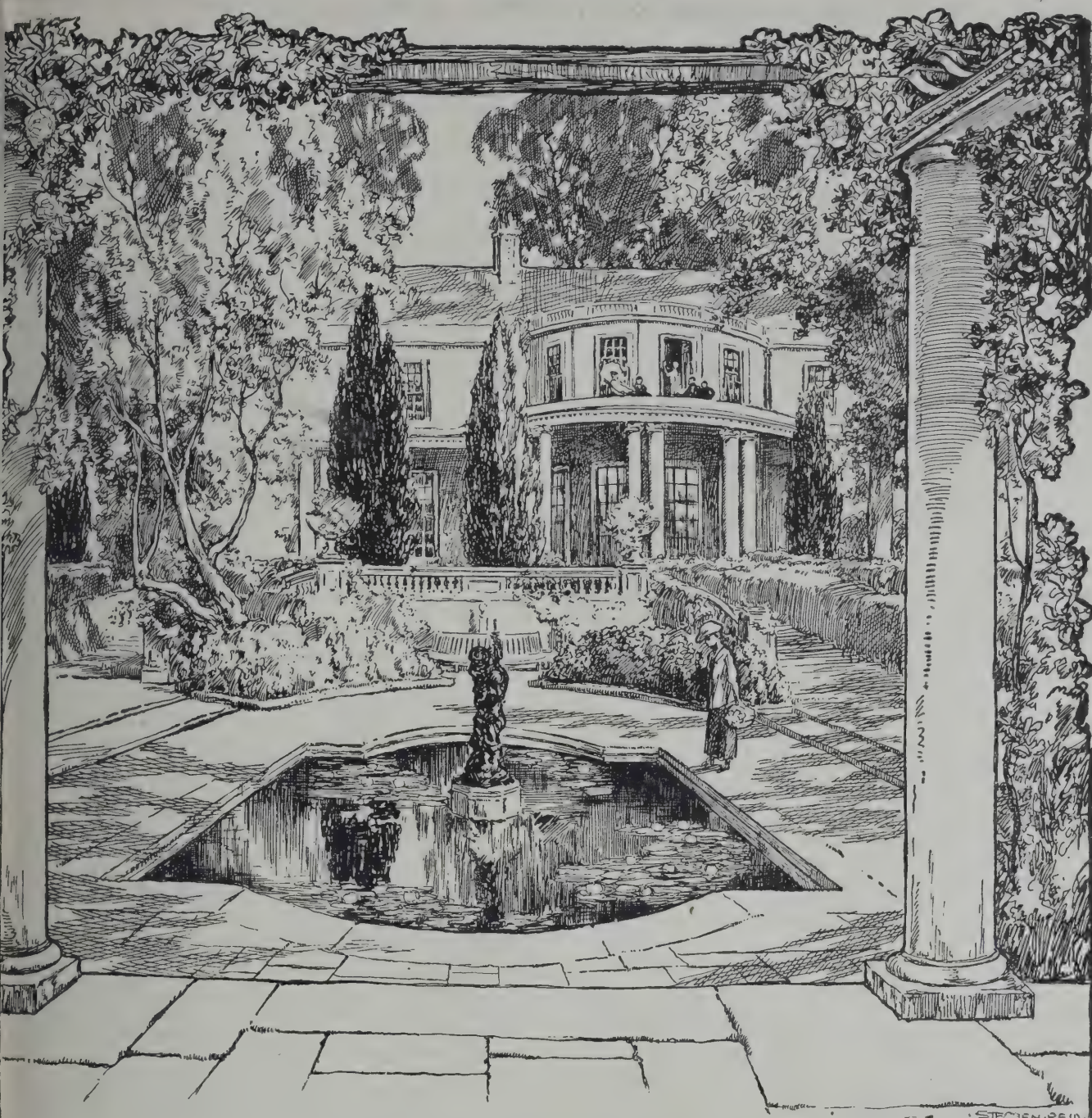


THE TONKIN MIXER SHOWING SPIRAL RAKES.

constant supervision still remains—the difficulty of ensuring the proper mixing and production of concrete. Concrete efficiently mixed and made is among the strongest and most durable of materials, but carelessly mixed may prove entirely unsatisfactory. It is with the object of eliminating these risks that the Tonkin Mixer Company, whose offices are in 608 Salisbury House, London Wall, has been formed, and, as we have seen the machine in

Mr. Samuel Evans, F.S.I., for many years county surveyor, bridge-master and architect, has placed his resignation in the hands of the Flintshire County Council. He has received a Government appointment under the Ministry of Transport.





Drawing by Stephen Reid, R.E.

### GARDEN POOLS AND RESERVOIRS.

**M**ANY garden pools have been formed of cement waterproofed with this remarkable powder. It has also been used with the greatest success for such huge structures as the 18,000,000 gallon reservoir for the City of Winnipeg, Canada. Leakages to the reservoirs at Kharagpore and Mutwall, Colombo, were stopped. In the latter a daily saving of 200,000 gallons of water resulted.

### BALCONIES AND LOGGIAS.

For the floors of balconies and similar constructions, no better material exists than cement waterproofed with 'PUDLO' and powder. It not only provides an ideal walking surface but is absolutely leakproof and does not soften under heat.

*Ask for booklet—free.*

# 'PUDLO'

BRAND

## CEMENT WATERPROOFER.

Used also for Damp Walls, Flooded Cellars, Flat Roofs, Baths, Garage Pits, Concrete Buildings, etc.

Tested by Fatja, Kirkaldy, Cork University, the Japanese, Dutch and Spanish Governments, and the most eminent experts.

Used by the Admiralty, the War Office, the India Office, the Crown Agents, the Office of Works, the G.P.O., etc.

BRITISH! and apart from patriotism, THE BEST!

Sole proprietors and manufacturers: Kerner-Greenwood & Co. Ltd., Ann's Fort, Kin's Lynn.  
J. H. Kerner-Greenwood, Managing Director.

REGISTERED

TRADE MARK.



## Plywood Door Panels.

AT the time of the acute shortage of all kinds of timber, particularly of those necessary for building purposes, and which coincided with the great demand brought about by the launching of the Government Housing schemes, we called our readers' attention to the numerous uses to which Plywood might be applied as a substitute for timber. In very many instances our advice was adopted with satisfactory results. But with the improvement in the manufacture and the greater care given to the choice of materials, Plywood can now be considered on its own merits and not as a substitute.

By the methods employed in its production in which three or more layers of wood are so arranged that the grain runs alternately in different directions in each layer, the sections being cemented together by a waterproofing composition, the result is a board of great lightness and exceptional strength, which will neither split nor warp and is unaffected by damp. Plywood is easily nailed, screwed, and sawed, and its lightness makes it easy to handle and cheap to carry, and effects great economy in time and labour. It has been used for floors, roofs, and ceilings, partitions, or skirtings and in practically every position for which ordinary timber is required; its hardness and durability enabling it to serve as an alternative substance for very many purposes. One of the latest uses to which it has been satisfactorily applied is for door panels. Three layers of birch are used to produce the board to which is added a veneer of hardwood, either satin walnut, mahogany or oak. To the London Plywood Manufacturing Co., Ltd., of 384 Old Street, E.C. 2., the credit belongs of introducing these door panels cut to size and delivered ready for fixing, the convenience of which we need not elaborate.

They also hold very large stocks of these walnut, mahogany, and oak veneered boards eminently suitable for wainscoting, partitioning, etc., and the careful selection of the hardwoods for these boards ensures a perfect surface. They are able to supply from stock every kind of Plywood for which a use can be found in any kind of building.

## General.

THE Olympia Oil & Cake Co., of Barlby Road, Selby, are about to erect new works near their present Olympia Mills.

SIR CHARLES NICHOLSON, Bart., M.A., F.R.I.B.A., the diocesan architect, has been instructed to report on the possibilities of the present site for raising a cathedral worthy of the diocese and city of Sheffield.

MAJOR VINCENT TURNER, A.M.I.C.E., of Dudley, has been selected out of thirty-eight candidates for the post of borough engineer, surveyor, and water engineer at Rotherham. The salary is £800, rising to £1,000.

A SCHEME is being promoted for the purchase of a site near the Grove, Mountain Ash, on which to build a hospital, which is estimated to cost about £34,000. The fund already formed has reached a total of about £16,000. The movement is mainly promoted by the miners of the district.

THE Glasgow Corporation Sub-Committee on Hospitals are considering plans for the erection of an auxiliary hospital in the neighbourhood of Robroyston Hospital for the treatment of cases of smallpox. The plans show a temporary structure of four or five wards, with accommodation for 200 beds.

THE Cardiff Education Committee contemplate the expenditure of £367,000 on building work. The main items are as follows:—Central High School, Grangetown, £72,000; Central Higher School, £72,000; Newport Road Central and Day Continuation schools and playing fields, £144,000; suggested extension of Technical College, £28,000; Howard Gardens Girls' School (gymnasium), £1,500; Canton School gymnasium, £8,000; new elementary school at Monachty, £36,000; increased accommodation, Girls' High School, £6,000; estimated cost of furniture and fittings, £28,200.

THE measured-drawings prizes awarded to the successful competitors of the Central (Cardiff) Branch of the South Wales Institute of Architects were presented by the chairman of the branch, Mr. Sidney Williams, M.S.A., at the first social held at the Institute Rooms, No. 6 High Street,

Cardiff. Mr. A. L. Priest was placed first for drawings (porte-cochere, Cardiff City Hall); Mr. J. Cyril Richards second (Chapter House, Llandaff Cathedral); and Mr. Alec C. Fletcher third (Doric porch, 6 Working Street, Cardiff). The prizes were given by Mr. Dan Radcliffe, Mr. Sidney Williams, Messrs. Ivor Jones and Percy Thomas.

## Housing News.

The Rowley Regis Urban Council has been informed that Dr. Addison has authorised H.M. Office of Works to proceed with the scheme for the erection of 200 houses on the Birmingham Road at Blackheath.

The Tamworth Town Council has resolved, subject to the approval of the Minister of Health and the Housing Commissioner, that a contract be entered into between the Council and Messrs. Willdig & Wood for the erection of ten houses (type A) at £723 15s. each, twenty houses (type G) £880 each, and twenty houses (type B) at £886 each.

The Glasgow and District Building Guild are endeavouring to raise a loan of £5,000 to meet the preliminary expenses in connection with the formation of the Guild. The loan is not to bear any interest, and is to be repaid as the Committee think best. The money is being raised by the issue of half-crown certificates to subscribers.

The Scunthorpe and Frodingham Council have accepted the tender of Messrs. W. G. Tarrant, Ltd., of £69,850 for street and sewer construction on the Crosby Building Scheme. It was resolved that application be made for permission to have the road and sewer work proceeded with at once by Messrs. Tarrant & Co., by the employment of local unemployed labour.

At Lancaster Town Council meeting last week a long debate took place on the housing question. It was proposed that ninety-six houses, as a minimum, should be erected at a cost of £92,431, or an average of £962 each, the Housing Commissioners having sanctioned the price. Various hostile amendments were proposed, and defeated by narrow majorities, and eventually the proposal was put that the whole ninety-six houses be erected. The voting resulted in a tie, and, the Mayor declining to give a deciding vote, there was a deadlock. Eventually it was decided, by sixteen votes to eleven, that fifty houses should be proceeded with, and the remainder if required and if the Council gave permission.

Dundee Housing Committee has agreed, subject to the approval of the Board of Health, to place a contract for the erection of thirty-three blocks, comprising 132 stone houses, at Taybank with Messrs. D. K. Symington, Dundee, at an estimated cost of £52,800. In recommending that the offer should be accepted, the City Engineer (Mr. James Thomson) said he believed that the Board would agree to the proposal. Estimates for the use of bricks and stone had been contrasted, and the estimate for stone was £38 higher than that for bricks. It is believed, however, that if subsidies on transport and bricks were to be considered stone would be at least £20 per house cheaper. The stone tender was for an 18-inch wall, whereas the brick tender was for a 9-inch structure.

## Trade Notes.

VULCANITE, LTD., inform us that owing to their present office accommodation being unequal to their greatly expanding business, they have secured larger premises at Blackfriars House, New Bridge Street, London, E.C. 4, to which address all communications should be addressed.

THE Right Hon. W. M. Hughes, Prime Minister of the Commonwealth of Australia, has consented to open, on February 14, the new works built in Sydney, N.S.W., by Chubb's Australian Co., Ltd., a subsidiary company of Chubb & Son's Lock and Safe Co., Ltd.

A CLERICAL error was made in our notice last week of the "Ideal Classic Four-column Radiators," manufactured by the National Radiator Co., Ltd. It should have been stated that 50, and not 15, per cent. more heating surface is obtained in a given floor area than with an ordinary single-column radiator of equal height.

THE goodwill of the London business of George Wright, Ltd., was recently purchased by Mr. F. W. Reed and Mr. James Paxton, two directors who for many years have been solely responsible for the management. The name of the company now is "George Wright (London), Ltd." The showrooms in Queen Victoria Street having been sold, new premises have been acquired in the West End, and will be opened about March. In meantime, business is being carried on at City Mill Buildings, 3a Upper Thames Street (Blackfriars end), E.C. 4.



## CONTENTS.

The Architectural Assistant	PAGE	99	Royal Institute of British Architects	PAGE	107
Illustrations		100	Competition News		107
Notes and Comments		100	Stratford-upon-Avon in the Sixteenth Century.—III.		
Forthcoming Events		101	By the Rev. Edgar I. Fripp		108
London Art Galleries: Art News of To-day		102	Imperial Building: What We may Learn from Rome.		
Minimum Salaries for Architects' Assistants		103	By W. G. Newton, M.A.Oxon., M.C.		110
"The Architect" Fifty Years Ago		104	Correspondence		114
Action Against an Architect on the Ground of			New Catalogues		118
"Negligence"		105	General		118

## The Architectural Assistant.

WE are informed, in a letter given in this issue, that statements made by us last week with regard to the new Assistants' Union are unjustified, but we think our correspondent does not sufficiently understand the points we emphasise. He considers it unfair to state that "every assistant worth his salt looks forward to establishing himself at a later stage in independent practice as an architect." We may be entirely wrong, but we have never met an assistant who did not intend to do so, excepting a small number who were either occupying the position of manager to some architect with a large practice, or those who had been unfortunate, and may be regarded among the failures which are met with in every walk of life. We do not include among these the men who find employment in some Municipal or Government Department, since they are more in the category of Civil Servants, and many of them are almost as independent as they would be were they in private practice, with the added advantage that they are called upon to take no risks.

But we adhere to our statement that the man who is satisfied with being an ordinary assistant to a private architect all his life may usually be described as not being worth his salt any more than the man who is content to occupy a small position in a bank or insurance office as a permanency.

If, as is alleged, a large number of architects run their offices with pupils, the practice is to be condemned, and we should be glad if it could be discouraged and penalised by the Royal Institute. But, on the other hand, many architects will never take a pupil at all, and we could see the end of the old system without the least regret. No architect who has much work can afford to give his pupils continuous personal attention, and if he has little work and much time the pupil misses what is most valuable in an office, contact with actual work. Many architects feel that though they would be willing to give the run of their offices to younger men as improvers, they would rather be free from any obligatory tie to do what a good architectural school can do very much better than they can.

The new Union and its spokesmen use many of the phrases of the Labour Party. The "right to live, the living wage, the increased price of commodities" are all expressions we have heard almost *ad nauseam*, and, like the Labour Party, we have little analysis based on economic facts. We wish to dwell briefly on some of these facts. The vast majority of architects are not capitalists, but men who have an insufficiency of work and a precarious income, men whose total earnings, after years of struggle, may be put down as being well under £1,000 a year.

It is true that the cost of building has been greatly enhanced, but equally true that its amount has been greatly reduced, and we believe that only a few fortunate architects are now making as much as they were in pre-war days. The architect who is actually employed for anything like the greater part

of his time on remunerative work is the exception, and not the rule, and the great majority spend most of their time in trying to create or find work by efforts which, for the most part, are unsuccessful.

It is easy to argue that they should meet the difficulty by charging more for what they do, for we know this is impossible, and, we think, for obvious reasons.

Despite the grumbling which we frequently hear, we consider the architect is usually paid a reasonable fee for what he does.

If he is incapable, slow, or idle he must blame his temperament and abilities, and not his chances; he is unfitted for the calling he has chosen, and, possibly, for most others. But the capable, energetic architect will, we claim, even make that *bête noir* of the profession, a small house, a reasonably remunerative job, while bigger commissions are even more so. It is not the scale of charges, but the amount of work which falls to the profession, which is too small. And we cannot blame the public if they prefer to dispense with our services.

We have no doubt that in the past some of the very small number of men who made good incomes have underpaid their helpers, and the fact is to be regretted. But this has another side to it. If A has a great reputation it is natural that B and C, who wish to gain experience, should consider it worth their while to take less for a time than they might get from D, whose work is of a commonplace nature. And if B and C have small private means of their own they will always be willing to sacrifice something for the sake of getting experience which will be of value to them. Though we may not think better of A for taking advantage of his position, and are glad to see B and C standing out for better terms, we doubt whether a minimum scale will ever work as long as human nature remains what it is. If A, instead of being a skilled architect, who designs his own work, is an incompetent one, B and C are in a better position to exact terms, and we are glad to know that they will do so.

But the majority of cases are those we have referred to—the architects, who, with difficulty, are making something under £1,000 a year. Are these men in a position to pay assistants salaries of £300 or £400 a year? We say emphatically they are not, and will not. If they are asked to do so they will probably come to the conclusion that they must do the whole of their work themselves, with the aid of photo prints and the minimum number of finished drawings. They will eschew perspectives and elaborate drawings, and will reduce their staffs to an office boy. Alternatively they will seek, in partnership or partnerships, for special jobs only what they formerly sought to obtain through the aid of assistants. This is the bare truth, and it is for assistants to consider whether the pursuit of the regulated minimum salary by means of a Union will do them more harm than good. Another fallacy



is that of comparing salaries with those of others. A speaker refers to the payments made to manual labour and to policemen. It is open to all of us who are young enough to follow another avocation, but, personally, that of a policeman would have few attractions for the average assistant.

Manual labour was frequently underpaid, not only actually, but proportionately, before the war. It is now probably overpaid, even when the relative cost of commodities is taken into account. We believe in the near future that we shall see wages reduced, or output increased, which comes to the same thing, and that present values cannot be taken as being stable.

These are what we consider as being the economical factors which really govern the situation, and will in the end control it, whether we are dealing with manual or mental work.

The real problem, if we want to better things, is to try, if we are in trade, to create new markets, and if we are in other callings to enlarge the scope of our operations; in a word, the crux is not to trouble too much about the division of what we have, but to increase the funds we have to divide.

We have been told that the architects' assistants may, failing compliance with their proposals, obtain the support of the new Gilds of Builders. If they really think they can better their position by doing so there is no reason why they should not. But we have no doubt that some of the depositors in, we will say, Illoyds Bank, who transferred their money to Farrow's, regretted that unfortunate step afterwards; and is the Union quite certain that the Gild of Builders can see them through the wood?

As to practical steps to improve matters for the younger men, we would ask them to consider a suggestion which has been made elsewhere. Most of the ordinary building in this country is carried out without an architect at all, and most of those who want houses and other smaller buildings buy what the builder erects to sell. Why should not

some of the younger men depart from the purely professional position and join hands with builders to produce what we claim the vast majority of men want—suitable buildings which they can buy—and out of the price of which both architect and builder could make a living? Consider the miles of badly designed and inconveniently planned buildings, which form the greater part of our towns and urban districts, and think what they might be under competent hands! We are urging the recreation of the master builder by the union between the younger men of both callings. Strictly limited professional architects would still exist, though their numbers would, we believe, become a constantly lessening factor, and their place would be gradually taken by the new master builders of a better epoch. Architecture would not die out, but would be revived and strengthened, for men in the future, as now, must have buildings, which would be the outcome of the united intelligence of the two factors which should never have been isolated.

We do not think that we need anticipate, as some do, a coming epoch, when all building will be done by Municipal or Governmental Departments, though it is true that the increase in the activities of such organisations has been great. The public is beginning to recognise that such activities are an expensive luxury, not only to the rich, but to smaller men, who have to pay for them in rates and taxes. And, as the politician has to withdraw measures like the E.F.D. and the Increment Duty, after they have been emphatically disapproved of by the majority, so they will sooner or later have to curtail the activities of the Departments. Neither this country or the world is ripe, or, we believe, ever will be ripe, for that most expensive luxury—State Socialism—and when its evils are a little more clearly recognised the way will be clear for what the world most needs—the untrammelled activities of the private citizen in every walk of life, only protected by just laws from infringing the rights which should belong to other members of a civilized community.

## Illustrations.

SKETCHES BY E. A. RICKARDS.

PROPOSED HOUSE, AUSTENWOOD COMMON ESTATE, GERRARD'S CROSS. WILLS AND KAULA, Architects.

## Notes and Comments.

### The Drawings of E. A. Rickards.

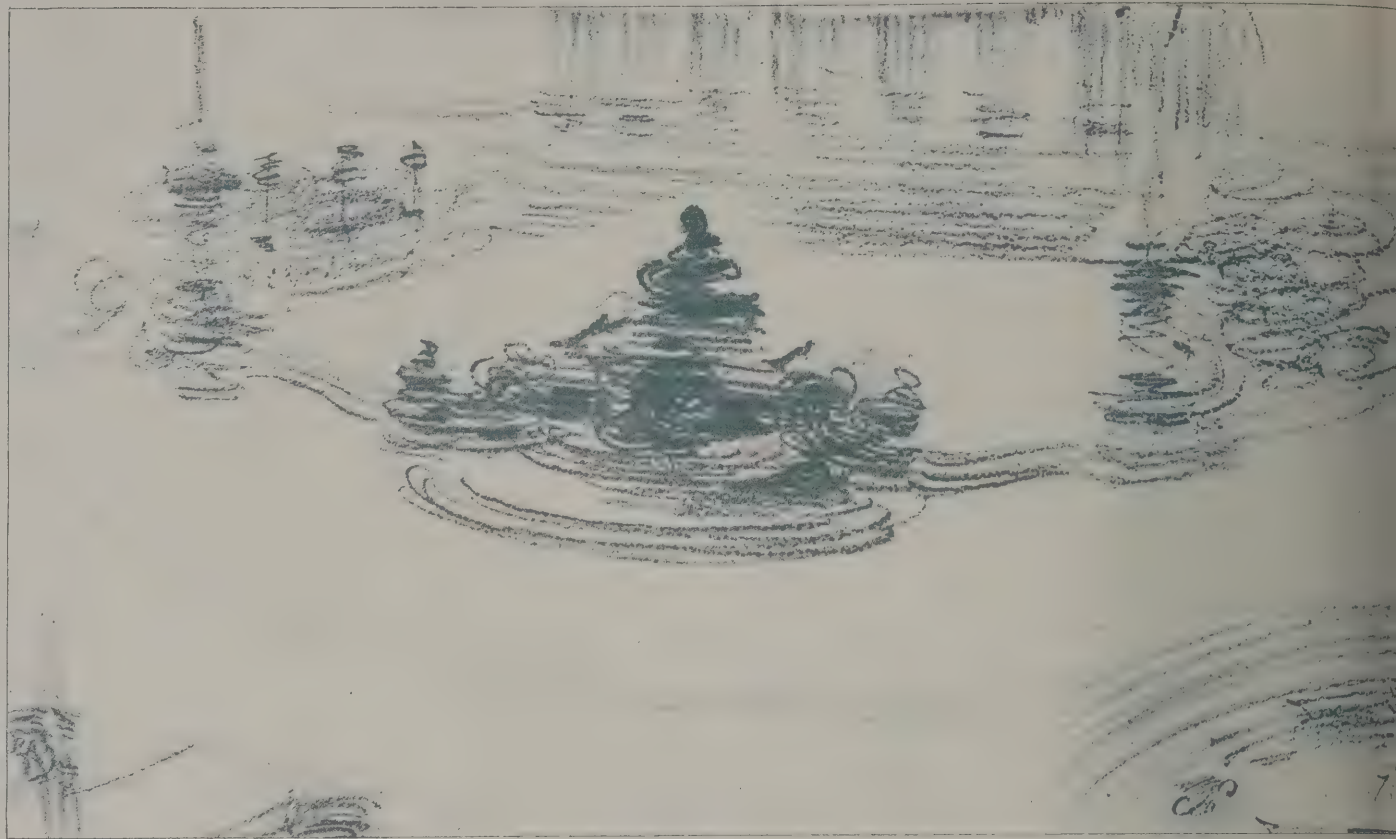
We are glad to be able to illustrate some of the exceedingly interesting drawings and sketches made by E. A. Rickards, which are now on view at the Architectural Association and which are for sale. We are sure many architects would be glad to possess some of the works of one of the best architectural draughtsmen this country has ever produced, and we hope that nothing will remain unsold when the exhibition closes. We also give a view of a model of an excellent monumental design by Rickards which is, with other models, on view in the Association Library, together with Mr. Tait's Zeebrugge Memorial, which should, we believe, have won selection, and drawings of which we hope to give later. The small informal exhibitions which the Association arrange are frequently more interesting and fuller of good things than many more imposing exhibitions, and this is certainly true of the work shown there now.

### The Rome Scholarship Drawings.

THE exhibition of the drawings submitted for the first round of the British Prix de Rome scholarship shows that competitors have produced some unusually good work. The subject—a National Pantheon—was a happy selection, and much work of outstanding merit has been submitted. We shall comment on some of the designs at length in a future issue, but meanwhile we may congratulate not only those who have been fortunate enough to secure selection for the final competition, but almost every one who has submitted a design, for nothing that is really poor has been sent in. The painting section also contains some remarkably good work, but sculpture rather tails off; little work of striking merit has apparently been sent in. A few years ago our sculpture seemed to be on the up grade, but during the last decade it has been somewhat disappointing.







FIRST STUDY, KING EDWARD MEMORIAL, BRISTOL.  
LANCHESTER & RICKARDS, ARCHITECTS.



Y 11th, 1921.



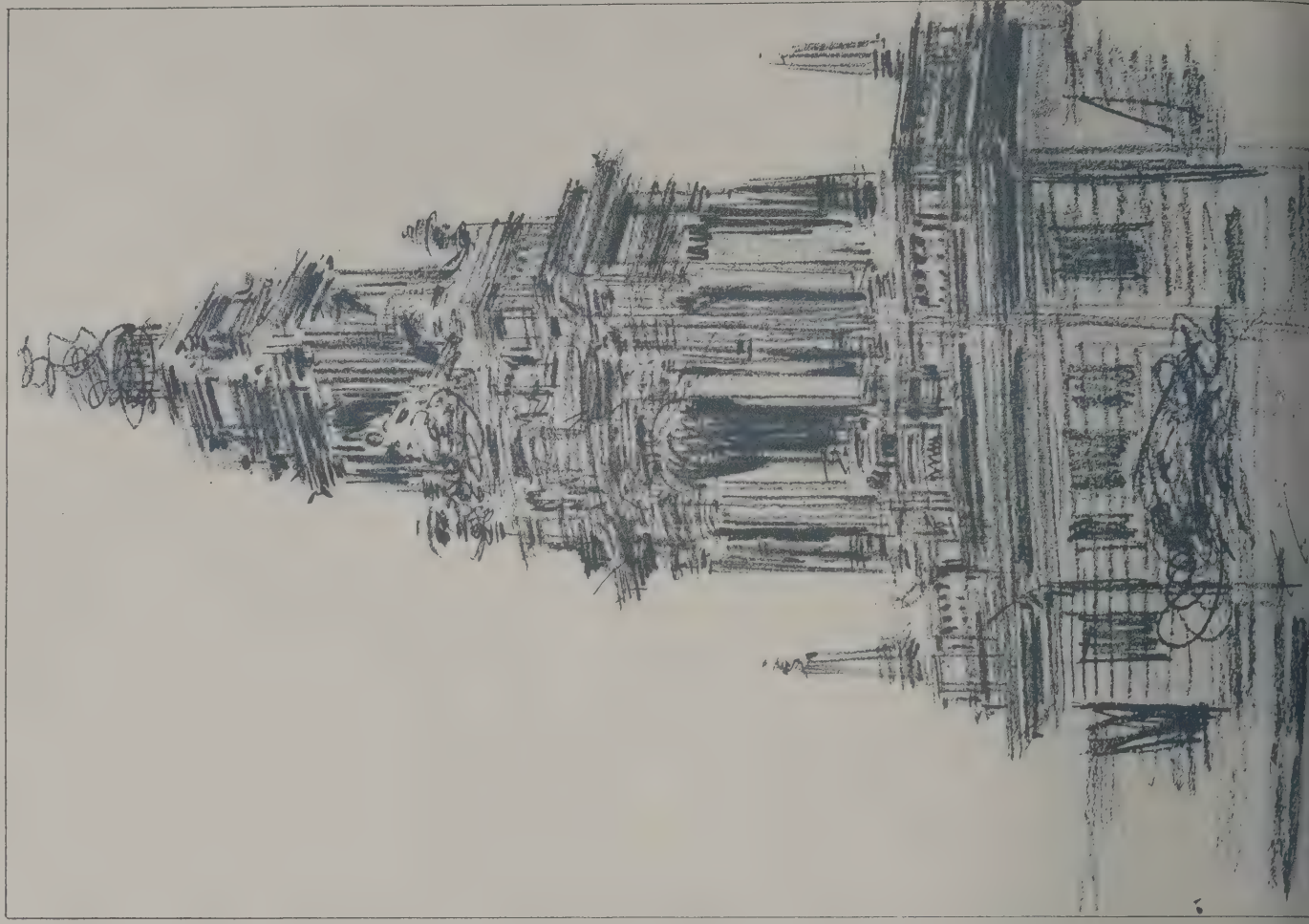
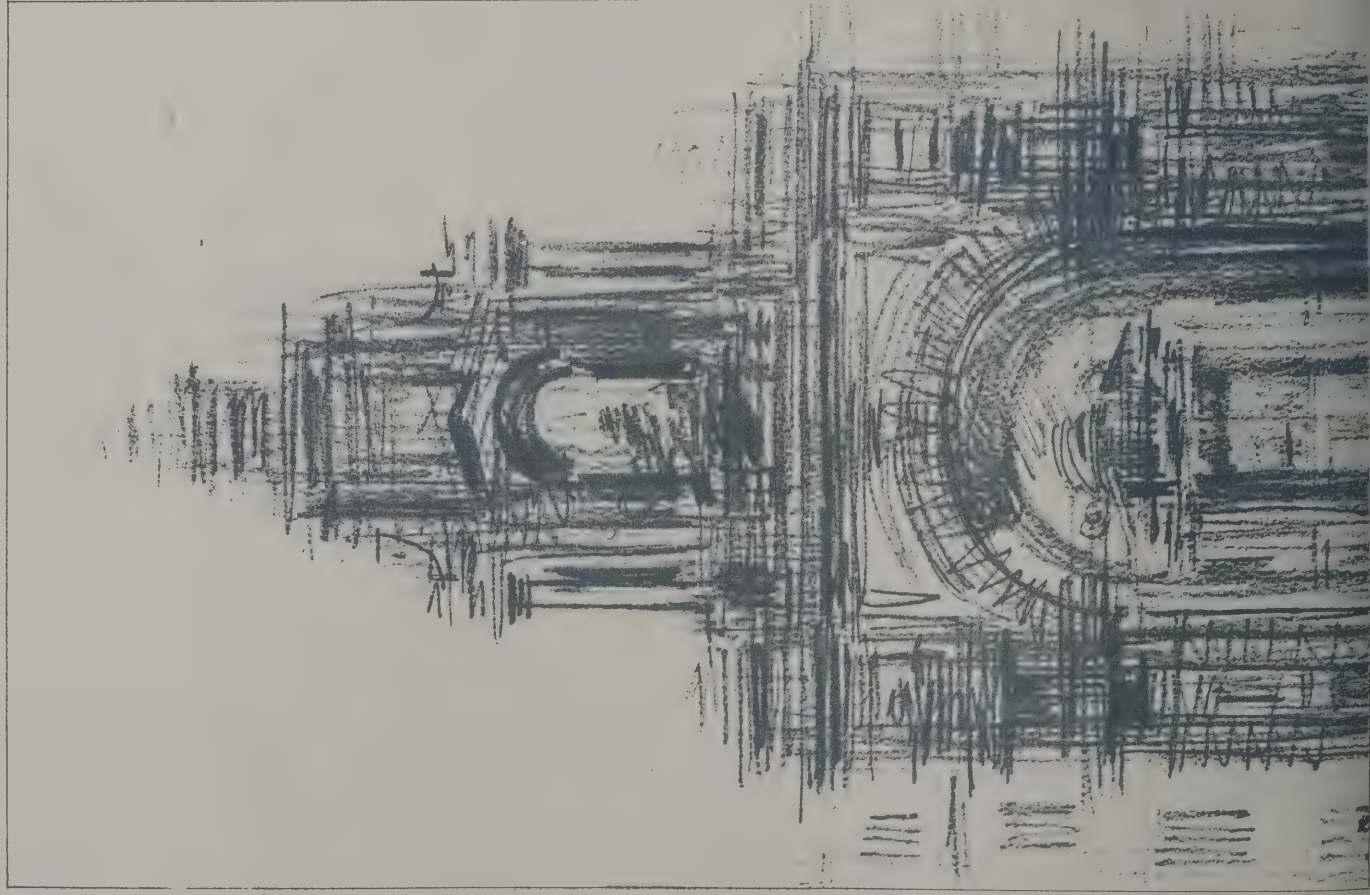
STUDY FOR ROYAL MEMORIAL. PARLIAMENT SQUARE, WESTMINSTER.  
LANCHESTER & RICKARDS, ARCHITECTS.









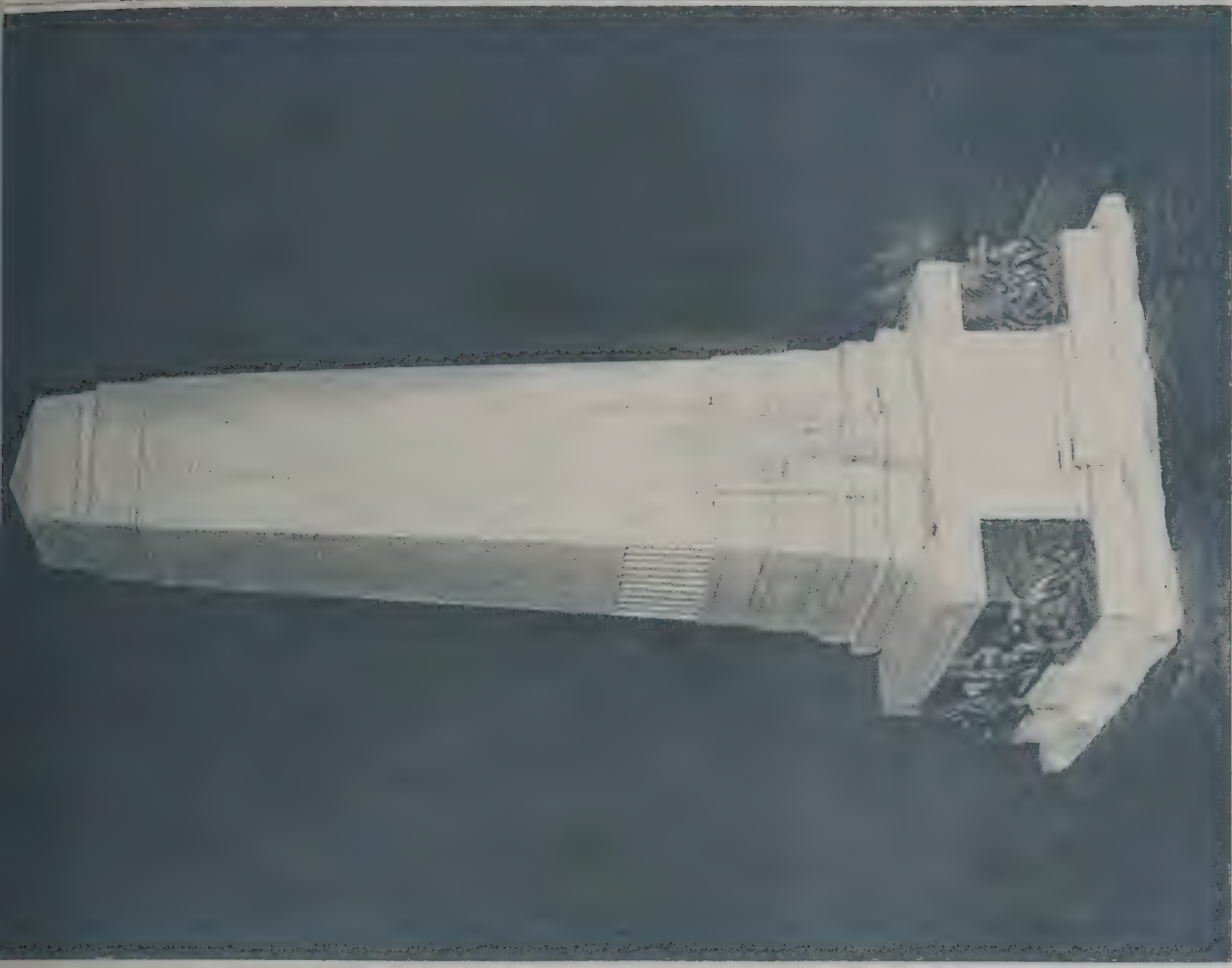






STUDY FOR MONUMENT FOR THE WESSEX REGIMENT.

E. A. RICKARDS, ARCHITECT. HENRY POOLE, SCULPTOR.



STUDY FOR ZEEBRUGGE MEMORIAL.

T. S. TAIT, ARCHITECT. REID DOCK, SCULPTOR.













A DRAWING BY E. A. RICKARDS.

### Dilution.

WE feel relief that the Building Trades have rejected the scheme of dilution proposed by the Government as it clears the air and should show the public exactly where they stand. The Government were, in our view, offering terms which should never have been advanced and negotiating where they should have acted. It may be recalled that after the Fire of London there was a great shortage of building trades operatives in London and the freemen of the companies connected with building strenuously objected to the country members of the trades being allowed to work in London. But the Government of the day gave the objectors short shrift, and an Act of Parliament was passed in 1667, which gave the "foreigners" the full privileges of freemen in London for a period of seven years. We have no doubt that this caused anger and annoyance in certain quarters, but it was effectual. The policy of trying to get what one has a right to by concession seldom pays, and all the Government has done is to show how selfishly, tyrannically, and absurdly the building trades have acted.

### London Flats.

MESSRS. YATES AND YATES, of Hanover Square, are trying to introduce a system which has proved a great success in America, and which may lead to the erection of flats in districts where they are much in demand. Owing to the high cost of building speculators are chary about undertaking the building of new flats, and finance is difficult to find. Messrs. Yates say that the problem would be simplified if in the case of a block of flats worth £400 a year each the tenants were charged £100 a year on a forty years' lease and allowed to commute the remainder by a capital payment of £3,000. The advantage of this to the builder is that he would get the whole of the capital required without borrowing, while the rents would give him a certain £5,000 a year, free from all deductions except the cost of lifts and porters. Even if this were swallowed up in expenses the builder would get the reversion of the building at the end of forty years. The scheme would in many ways be equally attractive to a tenant. A scheme on these lines is being prepared for the Regent's Park site recently acquired by Messrs. Yates and Yates.

### The Destroyed Houses of France.

ACCORDING to the latest data from the Ministry of the Liberated Regions, 304,191 buildings were destroyed and 290,425 damaged, or 594,606 buildings in all. The President of the Reparations Commission estimates the value of these buildings at £900,000,000 at pre-war rates. A one-storied miner's house in Northern France, con-

sisting of two rooms, an attic, and a lumber-room, with a small outbuilding for coal and washing, cost before the war £240; now the cost would be more than double. For reconstruction it is stated the sum of £750,000,000 may be taken as approximately correct, but the 9,000,000 acres of the battle-zone include the rich arable land of French Flanders which, before the war, was leased for £100 or more an acre, while values in Picardy and Artois were hardly less. Nine of the ten invaded departments, though representing only ten per cent. of the total area of France, produced 24 per cent. of her wheat and nearly 75 per cent. of her sugar. The cost of restoring the land may be put down at £11 an acre at the current rate of exchange, and the total value of the work at £152,000,000, this leaving out of the calculation the value of implements and machinery needed. This bill gives some idea of the enormous amount by which France stands to the bad as the result of the war, leaving out of account the infinitely more serious loss in killed and wounded men.

### Forthcoming Events.

*Friday, February 11.*—London Society.—Meeting at Royal Society of Arts' Lecture Hall, John Street, Adelphi. Paper by Mr. Thomas Wilson (Clerk of Works to the Houses of Parliament) entitled "The History of the Houses of Parliament." 4.30 P.M.

—Industrial Council for the Building Industry.—Building Trades' Parliament. Quarterly Meeting at Montagu House, Whitehall. (Second Day.) 10.30 A.M.

*Monday, February 14.*—Royal Institute of British Architects.—Meeting at 9 Conduit Street, W. Paper by Mr. W. E. Willink, F.R.I.B.A., entitled "The Cunard Building." 8 P.M.

—Bristol Society of Architects.—Paper by Mr. H. W. Seccombe Wills entitled "Agricultural Buildings: from the Animal's point of view."

*Thursday, February 17.*—London Society.—Visit to the Drapers' Company. 4.30 P.M.

*Saturday, February 19.*—Architectural Association.—Visit to the Metropolitan Water Board's new offices. Mr. H. Austen Hall, F.R.I.B.A., architect. 2.30 P.M.

THE Birmingham Architectural Association held a most successful dance on Friday last in the Wellington Room at the Midland Hotel, New Street, Birmingham. This is the first dance the Association have held since the War.

THE Chesterfield Town Council has decided not to enter into any further commitments in connection with housing schemes until the period during which houses must be completed to rank for Exchequer contribution is extended beyond July 1922, and an adequate allowance made to cover the cost of administration. The Corporation had proposed the provision of more than 1,000 houses additional to the number already arranged for.



## London Art Galleries.

(All Rights Reserved.)

LAST week was a busy week for the London Galleries. The Goupil Gallery opened on Wednesday, the 2nd, with a triple show, which I shall now describe: the same day saw the exhibition at Walker's Galleries opened of the paintings of Gustavo de Maestu, while on Saturday, the 5th, the Sennfelder Club and the humorous drawings of Mr. H. M. Bateman formed the new features at the Leicester Galleries. An interesting feature of this club for the development of interest in lithography, in its eleventh exhibition in these galleries, is the recently-discovered lithograph of "The Potato Gatherers" by Jean François Millet; another exhibit worth noting here is the life-size head of Trotzky by Edward Saltoft, who was in Russia for some years during the revolution as chief of the Danish Red Cross, which, I believe, did useful work for our own prisoners.

Mr. Saltoft gave last year in London a most remarkable exhibition of paintings dealing with the revolution in Russia, which was duly noticed in these columns. I had the pleasure then of meeting him personally and looking over the pictures, when I heard some details of the horrors of which he could speak from personal knowledge, and for which Trotzky as much as any one must stand branded before the tribunal of history.

I wish, however, now to treat first the Goupil Gallery, where we commence on the ground floor with the paintings of Mark Gertler: in the oil paintings here the flower studies are excellent, notably "Geraniums" and "Tulips"—fresh, clean direct work—and the "Still Life" is no less good. But Gertler is a figure artist, and must be judged by his figure work, which is not always satisfactory. I should put first the two self-portraits, one in the studio before the canvas, the head and bust reproduced on the catalogue being the best: the girl in the "Bokhara Coat" is weak in drawing, the clumsy arms out of relation to the head; but far the best figure drawing here is the "Nude" of a girl lying on a couch, which shows careful study and good proportions, though lacking the grand scheme of warm mellow colour which makes of "Une Tahitienne," in the next room, a masterpiece of Gauguin's art.

We go upstairs to the "Bois Nègres," a collection of some forty African wood-carvings, for the most part masks or figures, some of them of fetish character. "The evolution of fetishist sculpture of the black races," says M. Guillaume Apollinaire, "... must have followed a rhythm far more gradual than that which has controlled the evolution of European or Chinese art.... It was an audacious venture of taste which enabled us first to contemplate these Negro idols as veritable works of art."

The difficulty which presents itself, if we are to regard these subjects even from the collector's point of view seriously, is to form any kind of date or attribution. "The public," says M. Apollinaire, "is accustomed to see in catalogues well-defined works, grouped with precision, capable of being attributed, sometimes with certainty, to definite masters and schools. Such a presentation would be impossible in the case in hand." This seems, indeed, obvious from the fact that none of the authors or any kind of dates for these "Bois Nègres" are available: frankly speaking, we do not altogether regret it. The study of the evolution of African sculpture, as here represented, may well remain an unopened chapter of art criticism; and we are content to believe, with M. Apollinaire, that "we are here in the presence of æsthetic realisations which lose nothing by their anonymity,"—though we may have our doubts of "their genuine and simple beauty." What they do possess, however, in some cases is a really fine spontaneous decorative feeling, which is notable in the two last exhibits, a Ritual Mask, from Nigeria, which recalls Egyptian art in its feeling, and the even finer bronze head of a warrior from Benin.

The two next rooms in this gallery are given to the paintings, drawings and wood-engravings of Mr. John Nash, who is here very fully represented. Best of all, to my judgment, are the oil-paintings, and among these I should select "Landscapes in the Cotswold," "The Cornfield," which is excellent in its sense of space and sunlight and atmosphere, and "The Dingle." The water-colours, which occupy two walls, are less attractive and cold in tone: but elsewhere we find the artist at home in wood-engraving, while some of his drawings ("Low Comedian," and "Things Ruridecanal") have almost the humorous touch of H. M. Bateman.

But this last-named artist remains unsurpassed, as we find him this week in the Leicester Galleries. The humour of Bateman's work lies in the drawing itself, in every line and curve of it, whether in single subjects or in the picture story, in which he excels: a masterpiece of this last form is here in "The Possibilities of a Vacuum-cleaner," which it seems difficult to believe—as I am told—to have been once refused by "Punch." Description here is useless: the reader must see these drawings for himself.

The Sennfelder Club Exhibition in the next two rooms is, in my judgment, one of the best yet held by this society. Beginning with T. S. Boys we find on the walls lithographic work by Whistler, Shannon, Pennell, Rodin, with his wonderful sense of line, J. F. Millet, Saltoft (the saturnine head of Trotzky is to be noted), Vuillard, Degas ("Le Lever"—a delicious study), Forain, John Copley, Ethel Gabain, Hartrick, and Frank Brangwyn—a galaxy of talent.

Last week opened also the annual exhibition of the Royal Society of Painter-Etchers and Engravers in their Pall Mall Gallery; while mentioning here Molin's fine architectural studies of Spain, I reserve till next week my fuller notice of this exhibition.

The forthcoming exhibition of "Old World Gardens" at the Greatorex Galleries in Grafton Street is by V. E. Arthur Rowe, not Arthur Power, as was stated in a previous notice.

S. B.

## Art News of To-day.

THE appeal of the National Art-Collections Fund to secure for the nation Pieter Brueghel's "Adoration of the Kings" for our National Gallery, which we mentioned last week, has been met by the generosity and public spirit of a single individual. Mr. Arthur Serena has provided the balance of £3,500 which was required, and Brueghel's wonderful masterpiece will be ours. Mr. Serena, it may be remembered, was the founder of Italian Chairs at Oxford, Cambridge, Manchester, and Birmingham Universities, and of the annual gold medal for Italian studies at the British Academy; we have already owed in this country much to his splendid generosity, but never more than in this latest instance.

An interesting ceremony was witnessed last week in the City of London when, on February 3, the Duke of York unveiled another picture in the series within the Royal Exchange, whose subjects range from the scene of Phœnician traders bargaining with the Britons, to the King visiting his armies in Flanders during the Great War. This last was by Mr. F. O. Salisbury, and in the recent addition to this series, also by his hand, and presented to the Royal Exchange by Colonel Lord Marshall, he has depicted the King and Queen at the moment when, with the members of their family, and surrounded by civic and ecclesiastical dignitaries, they stood before their people at the door of St. Paul's Cathedral after the conclusion of the Service of National Thanksgiving on July 6, 1919. In a very eloquent address the Duke of York, when he released the Union Jack and displayed this painting, alluded to this moment in our national life, in the words of Sydney Smith,— "with the sword just sheathed, the flag just furled, and with the last sound of the trumpet just dying away."



## Minimum Salaries for Architects' Assistants.

THE Architects' and Surveyors' Assistants' Professional Union held a well-attended demonstration on Thursday evening, the 3rd inst., at Caxton Hall, Westminster, in support of their proposals for minimum salaries. Mr. A. J. Penty, Licentiate R.I.B.A., President, occupied the chair. From the point of view of the organisers the meeting was doubtless an unqualified success: all the resolutions were carried unanimously; there was that air of personal enthusiasm in both speakers and audience which is inevitably aroused when the arguments affect their pockets; the prime movers of the Union were able to show a highly creditable record of activity hitherto carried out more or less as confidential negotiations; and finally the audience were satisfied with what was reported. It must be admitted that up to the present the Union has failed to achieve any tangible result in this matter of minimum salaries. That is not their own fault, however, but is due to the policy of the professional bodies concerned who have courteously listened to deputations and politely acknowledged letters, and yet have committed themselves to nothing.

Mr. A. J. Penty, the President, in opening the discussion, explained that, though the meeting had been organised by the Architects' and Surveyors' Assistants' Professional Union, it was not one of their ordinary meetings, but a demonstration of all architects' and surveyors' assistants. It seemed to him an extraordinary thing that they should be gathered together to demand a minimum wage. Every one of those present had undergone a long technical training, and at the end of it their prospects were no better, if as good, than they used to be. Figures prove that there are a tremendous number of assistants who are paid very much less than unskilled labour is paid to-day. This can be attributed, in the first place, to the fact that hitherto they have been too individualistic; they were not organised, and they have gone on the assumption that sooner or later each one of them would find himself on his own feet, and that his salary need not be a real recompense for his services, but a nominal one. No one could make a defence that the salaries now paid are sufficient. There was no other course of training which did not offer something very much better than the architects' assistant can count on. The prospect of independent practice had come definitely to an end with the growth of architectural departments and with the decline of the middle classes. The average assistant has not the ghost of a chance of ever getting on his own feet unless he possesses very strong influence. So he must spend his life as an assistant. The important thing for a young would-be architect used to be to go into the office of some very well-known practitioner for the sake of the prestige it would give him, and without any regard for the salary received. Public bodies have seen this, and have taken these nominal wages as fixing the proper reward for an assistant's services. In consequence, all public offices are now paying what were intended to be purely nominal salaries. Their only remedy for this state of affairs was to band assistants together and to say they must be paid proper salaries. The present state of things, under which the storekeeper who distributed pencil and rubber was paid more than the man who used them, must not be allowed to continue. One of the reasons why they were now suffering was the belief that architecture was a gentlemanly profession, and that it was not gentlemanly to bind together; that it was gentlemanly for an architect to get a big fee and for the assistant to suffer being exploited in silence. Another thing they must attack is the existing method of pupilage. In Scotland especially the offices are run almost entirely by pupils. If it was not for that fact salaries would tend to improve. A man ought not to be allowed to bring into his office as many pupils as he liked. It was exploiting boy labour in a way which had been rendered illegal in other directions.

Messages were then read from sympathisers and from provincial branches of the Union.

Mr. Charles McLachlan, A.R.I.B.A., hon. general secretary, then proposed the following resolution:—

That this meeting of salaried architects, surveyors, professional and technical assistants in the building industry, and representatives of non-manual workers' associations, emphatically endorses the policy and proposals of the Executive of the Architects' and Surveyors' Assistants' Professional Union in regard to minimum salaries for all workers employed in a professional or technical capacity in the building industry, such minima being £4 per week for an assistant of nineteen years age and £6 6s. per week for an assistant of twenty-six years of age, these figures being based on cost of living at 100 to 125 per cent. above that of July 1914.

Mr. McLachlan said that it was up to the Union to prove to their more impatient members they were doing something in this matter, and the Executive Committee hoped the present meeting would show that they wanted them to continue on the same lines of policy. They had been waiting eleven months for their effort to bear fruit in the Councils of the Royal Institute of British Architects, the Surveyors' Institution, the Society of Architects, and the Quantity Surveyors' Association. On January 5 last the Union wrote to these bodies inquiring how the position stood and warning them that they did not propose to wait any longer before publishing their recommendations. The replies were mostly of a vaguely non-committal character and the Union now felt at liberty to report as to what had been done. It was for that meeting to say whether the Executive Committee had been guilty of undue delay or if they had done their best. The Committee had always been careful to state their case as "proposals" and not as "demands." It was sometimes objected that these proposals would, if adopted, fix standard wages for assistants, but they were put forward as minimum and not standard wages. In 1911 the Guild of Architects' Assistants, now defunct, asked for a minimum wages of 35s. a week for men aged twenty-one; this corresponded with the £4 now asked for up to the age of twenty-six. There were many very prominent architects in London who did not pay a single one of their assistants more than £5 a week. The Committee knew of numerous cases of salaries ranging from £2 to £3 a week being paid to highly qualified men. In February 1920 the Civil Service Whitley Council had recommended the regrading of the Second Division Clerks, these being recruited by competitive examination from Secondary Schools; and according to this the clerks automatically go up to £6 16s. per week. The Union were asking for £6 6s. at the age of twenty-six. A police constable on joining the force is now paid more than most assistants, as well enjoying excellent chances of promotion and a free uniform. The Union's figures were so moderate they could not with self-respect ask for less.

Mr. R. G. Strachan, P.A.S.I., general treasurer, in seconding the resolution, scouted the suggestion that the minima proposed would become the maxima; but, he added, even if this did happen most assistants would be about 200 per cent. or 300 per cent. better off. It would be up to the Union to prevent the proposals becoming the maxima. If the new scale was going to touch the architects' pocket seriously it was up to architects to increase their fees. At the present moment there was a business slump; but personally he thought that that was the right time to agitate.

Mr. J. Mitchell, Jnr., hon. secretary to the Scottish Divisional Council of the Union, spoke of the keen support given to the Union in Scotland, where last year's membership of thirty had increased now to 400. The situation there was desperate owing to the deplorable apprenticeship system. It was impossible that the existing appalling state of things should continue. The employers must somehow be brought to the point of paying the minimum wages asked. In the case of a refusal, the assistants must start business for themselves and form a kind of guild of architects. Work would certainly come to them from the Building Guilds and from those local



bodies which had labour representatives. At present at least twenty-five per cent. of the work was brought into offices by assistants who, if very lucky, received one-quarter per cent. fees. Such a guild could reduce their scale of fees to a minimum. They might enter into alliance with bodies like the clerks of works. Their profits would be put into an unemployment fund, development fund, &c. It seemed as if there was nothing the proposed guild might not do. They must be prepared to go forward without compromise and to cut a clean line between assistants and employers.

The first resolution was then carried unanimously.

Captain F. G. Llewellyn Evans, M.S.A., vice-president, then proposed the following resolution:—

That this meeting of salaried architects, surveyors, professional and technical assistants in the building industry, and representatives of non-manual workers' organisations, in consideration of the low standard of remuneration at present prevailing appeals to all salaried architects, surveyors, and professional and technical assistants in the industry outside the Union to support in the most practical way their colleagues in their efforts to fix minimum salaries—viz., by becoming members of the Union.

In a vigorous speech Capt. Evans declared that organisation was the only way by which they could hope to accomplish their ends. The success of the postal workers' organisation, which had attained its objects on a mere threat, should be a lesson to them. It was up to every assistant to come into the Union with enthusiasm.

Mr. T. Braddock, in seconding the resolution, said they must be with the big battalions like the Miners' Federation. It was only by combining with other workers they could improve their position. The prospects appeared to be very good. It would not have been possible five or ten years ago to have achieved their present progress and to have numbered 1,600 members. All kinds of workers were combining, including bank and insurance clerks. Architects' assistants were out for bigger wages for all that these led to. They were out for a decent existence for their wives and children. During the war there had been a tendency to lower the standard of living; it was only by organising that that standard could be improved. In the very near future this country was going to be run by a very different sort of people to those who are running it now.

The second resolution was then carried unanimously.

Mr. Jas. Macaulay, F.S.I., F.F.S., Chairman of the Scottish Divisional Council, then proposed the final resolution:

That this meeting of salaried architects, surveyors, professional and technical assistants in the building industry, and representatives of non-manual workers' organisations, regrets that the Councils of the Royal Institute of British Architects, the Surveyors' Institution, the Society of Architects, and the Quantity Surveyors' Association have not yet adopted the unanimous resolutions of the Architects' and Surveyors' Assistants' Welfare Committee, the properly constituted Joint Committee of representatives of each institution named on the one part and of the Architects' and Surveyors' Assistants' Professional Union on the other part, and urges that they forthwith do so and make representations to their members and the professions accordingly, and do include these minima in their scales of professional charges.

In the North, he said, they felt inclined to use a stronger word than "regret" when speaking of the failure of the various professional bodies mentioned in the resolution to adopt the proposals of the Society. A good deal of their trouble in Scotland was undoubtedly due to the number of apprentices in architects' offices. In one prominent office there were fifteen apprentices and no paid assistant. The art schools have been overcrowded with young boys. If architects would really adhere to their official scale of fees they would be in a position to pay higher wages.

Mr. R. A. Duncan, A.R.I.B.A., seconded the resolution and appealed for volunteers to help in the clerical work required to run the Union.

The third and final resolution was then carried, and the meeting terminated.

## "The Architect" Fifty Years Ago

FEBRUARY 11, 1871.

It is not the first time that the question has been boldly asked—*Why should there not be a "Royal Academy" of Architecture?* That this also is one of the certainties of the future there are not a few who will be fully prepared to maintain. Whether the time has arrived for the actual promotion of such a thing is probably the sole question for consideration. As for the present moment, this at least cannot be doubted;—that the profession possesses in the United Kingdom a sufficient number of members of acknowledged renown to put forward its own "forty," or say half the number to begin with, not only as qualified artists and men of science, but as men of professional intelligence and success showing quite as high an average as is to be found in the Royal Academy of Arts, or in that of Music, and obviously of an advanced standard of general education which cannot be claimed for either of those institutions, or considered likely to be ever attempted by them. It is, therefore, no idle or visionary idea which we venture to suggest, when we say that if the Institute of Architects should be pronounced unable to convert itself into what is called an educational institution, it may possibly find less difficulty, and even more advantage, in promoting the establishment of a kindred organisation which shall take the element of instruction for its legitimate groundwork, and, by being nominally rather than really separate from itself, shall be at once a class of honour for its own distinguished members, and a supreme agency, not for education alone, but for the advancement of many other professional objects which lie beyond the scope of the existing Guild.

MR. W. MARCHMENT, of London, has been appointed architect for a general hospital proposed to be erected, at a cost of about £60,000, as the Ironstone Area War Memorial. Mr. Marchment, together with his partner, Mr. Brocklesby, is responsible for the Scunthorpe municipal housing schemes.

At the London County Council last week it was stated that the payments up to December 31, in respect of the new County Hall totalled £1,733,840. The estimated total cost of future commitments was, for Sections A, B, and C, £1,582,000. The estimated total cost of the complete scheme, Sections A, B, C, and D, was approximately £4,344,000. This did not include furniture, for which no detailed estimate had yet been prepared.

MESSRS. NETTLEFOLD & SONS, LTD., have set up in their warehouse at 54 High Holborn, London, W.C., a remarkably fine permanent Roll of Honour to the memory of the forty-eight employees who served in the late war, and more especially to the memory of the seven men who made the supreme sacrifice. The tablet, which is a notable piece of art metal work designed by Mr. G. T. Richardson, consists of two large shields in bronze, with the names engraved in white enamel; one shield slightly overlaps so as to obscure the names of the fallen. The latter are repeated below on a central shield in silver engraved in black enamel. The framework consists of bay leaves, &c., carried out in iron. At the short and commendably simple unveiling ceremony on Monday afternoon last, Mr. Oswald Nettlefold paid a tribute to the men commemorated, both as individuals and as representatives of that Army which helped to crumble into dust the greatest fighting machine the world has ever seen. Mrs. Nettlefold added her meed of praise before exposing the memorial.

THE death occurred last week of Mr. Edward Holmes, J.P., a well-known Sheffield architect and surveyor, following on an operation. Deceased, who was in his sixty-fourth year, was the son of Mr. Samuel Fisher Holmes, the first borough surveyor of Sheffield. Born in Sheffield, and articulated to his father as an architect and surveyor, he subsequently entered into partnership with Mr. Alfred Scargill under the style of Holmes & Scargill. Then he became partner with Mr. A. F. Watson, and in later years with his son, Major Holmes. Mr. Holmes made a speciality of valuing. He was on the Committee of the Sheffield Society of Architects from its foundation in 1887, and was a Past-President of that body. Mr. Holmes paid special attention to the education of young members of the profession and offered many prizes. Apart from his profession, Mr. Holmes was high in Masonry and prominent in many other ways, though never actually taking part in the public life of the city. A considerable number of members of the Sheffield Society of Architects attended the funeral on the 7th inst.



## Action Against an Architect on the Ground of "Negligence."

[We gave a note on this most important case last week, and are glad to be able to add a statement by Mr. William Woodward and the Official Referee's judgment which follow below.—Ed.]

*The Rev. John Bishop Marsh, Plaintiff; and  
E. J. W. Hider, Defendant.*

THIS case, which lasted eight days, was tried in the High Court of Justice, King's Bench Division, during the month of December of last year and January of this year, before Mr. G. A. Scott (Official Referee), whose judgment was delivered on the 21st of last month.

The case is of such importance to architects that I have obtained a copy of the judgment, in full, which is hereto annexed.

It is, in some cases, quite easy to delay paying, or decline to pay, an architect's legitimate charges by threatening or commencing an action for "negligence," and, unfortunately, it is not possible, in the case of many of us, to face the enormous law costs which, even if successful, we are bound to incur.

It would be unfortunate if, in cases of real negligence, or of improper or unprofessional conduct on the part of architects, the assistance of architects could not be obtained by those who may have suffered by such negligence or improper or unprofessional conduct; but, on the other hand, great care should be exercised by expert witnesses before consenting to give evidence against an architect.

It is no part of my province to criticise the expert evidence which was given in this case against Mr. Hider; the Judgment of Mr. G. A. Scott is conclusive proof of the value of that evidence.

I am glad to say that, after careful consideration of Mr. Hider's case, I was thoroughly willing to support him, as I did, during the trial, and the other expert witnesses on his side gave their full attention to the details of the case, which are sufficiently set forth in Mr. Scott's Judgment, a Judgment delivered after the most painstaking care of, and attention to, technical details, which exhibited a knowledge and ability well meriting the encomiums which were passed upon the learned gentleman.

The impression left upon my mind is that in this case it was wrong to attempt to introduce formulæ quite applicable to a new building of the warehouse class, but by no means so with regard to the conversion of a dwelling-house about a hundred and fifty years old into a warehouse with floors to carry heavy weights, and that at a cost which had to be, by the client's instructions, kept down to the lowest limits.

I should like to add a word of appreciation at the conduct and grasp of the case displayed by the learned counsel on both sides.

*Counsel for Plaintiff.*—Mr. Holman Gregory, K.C., and Mr. Herbert Smith, instructed by Mr. William A. Sanders, solicitor.

*Counsel for Defendant.*—Mr. E. F. Lever, and Mr. N. P. D'Albuquerque, instructed by Mr. W. P. Armstrong, solicitor.

*Witnesses for Plaintiff.*—Mr. William A. Sanders, Mr. Mumby, architect; Mr. Dacres, architect; Mr. H. A. Porter, architect; Mr. F. K. Sykes, lessee; and Mr. Crowther, builder, who cut well for lift.

*Witnesses for Defendant.*—Mr. Wm. Woodward, architect; Mr. Harry George Leslie, architect; Mr. Ernest J. Caston, quantity surveyor; Mr. Percy Hawkins, estate agent; Professor Harold Maxwell Lefroy, entomologist; and Mr. E. J. W. Hider, defendant.

15 Great James Street, Wm. Woodward.

Bedford Row, W.C.1.

February 3, 1921.

JUDGMENT BY MR. G. A. SCOTT, OFFICIAL REFEREE.

January 21, 1921.

21 Beak Street belongs to the plaintiff, the Rev. John Bishop Marsh, of Nayland Vicarage, Colchester, and for many years was a public-house known as the Coach and Horses. When the lease to the brewers expired in March 1916 he determined to let the licence drop and to convert the premises to other uses. For this purpose he put the matter into the hands of his cousin, Mr. Sanders, a solicitor of experience in the management of house property, and in July 1916 Mr. Sanders got in touch with the defendant, Mr. Hider, who is an architect of general practice with considerable experience in dealing with old houses in that neighbourhood and elsewhere. The claim in this action arises out of the retainer by Mr. Sanders of Mr. Hider as architect to convert these premises, and is a claim for damages alleged to have been suffered by reason of Mr. Hider's breach of duty created by the retainer. His duty was twofold—first to advise as to the proposed reconstruction and to draw the specification to carry out the scheme decided upon, and secondly to supervise the execution of the work by the builders employed. After some interviews the defendant inspected the premises three times, and on July 24, 1916, reported to Mr. Sanders. This report, as shown on the face of it, was to assist Mr. Sanders to give the defendant definite instructions; it was not in itself a definite opinion as to any particular scheme. It indicates the sort of work Mr. Hider thought should be carried out to convert the premises into business premises, and it suggests that Messrs. Garrett, White & Poland would advise "that the best permanent let would be as a small warehouse in connection with Golden Square trade." For this conversion the report indicates a somewhat drastic scheme of structural reconstruction. As I read the report it meant practically gutting the second and third floors, leaving only the steel joists which then supported the second floor. This is what Mr. Hider said he meant, and this view was confirmed by Mr. Porter, called for the plaintiff, who said: "The report (pages 2 and 3) points to reconstruction *in toto* of the second floor except steel joists, and all third floor." I pause here for a moment to point out the general conditions which then underlay all building operations. A contract for more than £500 had, in the public interest, been made illegal; a priority certificate for steel was necessary even if obtainable; seasoned wood scantlings were practically unobtainable, and experienced labour was almost as difficult to obtain as materials. In addition to this, Mr. Sanders was most insistent upon the strictest economy. This was the position when these gentlemen met to discuss what should be done. They met at the premises on July 26, and I am quite certain they both discussed a very difficult building operation with the one idea of doing the very best that could be done for Mr. Marsh. Since that conversation more than four years have passed, and there is considerable discrepancy as to what was said, not so much in reference to what work was to be done, but as to the result of the scheme then generally agreed. Mr. Sanders' memory is that Mr. Hider expressed himself in such a way as to pledge his professional skill that this work, when executed, would convert the premises into a warehouse for cloth capable of lasting fifty or sixty years. Mr. Hider, on the other hand, says cloth was not mentioned, but the woollen trade might have been, and his memory of the proposed user was a "small self-contained building for Golden Square trade." He categorically denied that he was instructed to prepare a specification for a light warehouse, but he did contemplate that the building might be used for a small warehouse amongst other things. My view is that in looking back the memory of both these witnesses has been tinged by subsequent events. I am not satisfied that Mr. Sanders is accurate as to the definite user of the premises as a warehouse, and I am not satisfied that Mr. Hider said anything about the sort of load the second or third floors could be expected to carry when reconstructed. Such details were then premature.



It is, I think, necessary to see what was in fact the result of the conversation, and about this there is no room for dispute, because the scheme of work decided upon was thereafter embodied in a draft specification. In my mind this specification in respect of the second and third floors conclusively proves Mr. Hider's statement that the report, in so far as it related to the work on these floors, was turned down. The old beams, called for convenience bressummers, which had seriously sagged, were to be retained, and the third-floor bressummer centrally supported by a fitch beam. Mr. Hider says he pointed out to Mr. Sanders the then construction of the floors, and said it was a wonder that it had hung up so long. He says he took Mr. Sanders to the basement and explained how by using a central support for the third floor over the steel joists the floors could, if necessary, be further supported without destruction by a central column from the basement. He said also he mentally calculated that the reconstruction would roughly double the strength of the third floor from  $\frac{3}{4}$  cwt. per foot to  $1\frac{1}{2}$  cwt., though he does not say he told Mr. Sanders these loads.

Two letters then passed, one from Mr. Hider, dated July 28, 1916, and one from Mr. Sanders, dated July 31, 1916. Mr. Hider wrote as follows:—

"Referring to our interview yesterday, I have made application to the Westminster City Corporation for pavement lights, and have shown new line of shop front. Will you kindly decide how you would wish the application to be made for licence from Ministry of Munitions. I will get drawings and specifications in hand, and will see you with drafts before copying."

In his reply Mr. Sanders wrote:—

"I thank you for your letter of the 28th inst. I take it that you had better apply to the Ministry of Munitions, at any rate in the first instance. You can state that the premises belong to a clergyman, who is giving up the use of them as a licensed house and who wants to convert them into business premises; that he is a man of restricted means, and as from March 25 last has been without any returns from the property."

Let me here sum up this interview as leading on the defendant's liability in this action, and for this purpose it is necessary to look ahead. The premises, when finished, were let on July 20, 1918, to Haigh, Sykes & Co., woollen piece-goods merchants. When let, the second and third floors were approached by a staircase, 2 ft. 9 in. in breadth. This firm put in a lift, 4 ft. by 4 ft., up to the third floor, and they were then advised that the second and third floors could not be safely used as a store for their rolls of cloth. The full user which they desire having the facility of the lift involves a weight, so I understand, of about  $2\frac{1}{2}$  cwt. per foot, and it is agreed by everyone the floors cannot be safely used for such a load. In these circumstances the plaintiff says: "You, the defendant, are liable to pay the cost of making these floors strong enough to carry this load, because you warranted that the work in the specification, if properly executed, would have this result."

Mr. Holman Gregory then conceded this was not the measure of damage, but he claimed the difference between what it would then have cost and would now cost—sum of, say, £70—in regard to the third floor.

The alleged warranty arises in this way: You as an expert stated these floors were to be fit for warehouse floors—i.e., fit to carry at least 2 cwt. per foot.

To my mind it is most improbable that Mr. Hider did, or indeed could, have made any such statement. It is inconceivable, even if a possible user should have been expressly referred to as a cloth warehouse, that Mr. Sanders, who had, as a solicitor, experience in the employment of architects, should have regarded such a statement as a warranty that these floors would carry that load, nor can I understand why, if he thought Mr. Hider had committed himself to so wild and so improbable a prophecy, he did not put this on record as a term of his employment. So far from this, he refers to the conversion scheme simply as a conversion to business premises. The subsequent user of shops and warehouse as designat-

ing the premises does not in my opinion carry the matter further. Mr. Hider's duty as architect was within the conditions then appertaining, and in accordance with instructions to draw a specification to convert these floors from domestic to business use with reasonable professional skill. In my judgment those were his instructions, and despite the alternative suggestions made in the light of subsequent events, which in my opinion involved an expenditure that the law prohibited, and the building owner was unwilling to incur as to a better scheme, I have come to the conclusion he showed not only ordinary skill but a most remarkable ingenuity in the specification he drew. I think his letter of September 28 is true in fact. I think it exactly carried out the instructions expressed in the letter of September 27. Mr. Hider wrote as follows:—

"Please accept my assurance that the scheme of proposed renewal has been very carefully considered, and is provided for in the specification as simply as possible consistent with the necessary finish to appear as nearly new as possible, and to last for the next fifty or sixty years."

Mr. Sanders had written as follows:—

"You will bear in mind that my great desire is to have the work well done; but that, subject to this, economy is of great importance in this case."

This finding of fact really disposes of one part of the case, and I now turn to the second head of complaint, which was that Mr. Hider was negligent in the supervision of the work, and also to some extent in the fitch-beam construction.

This question I have found a difficult problem, and before dealing with it I desire to shortly state my view as to what the warranty of skill means.

The warranty of skill arising from the profession of a particular calling is not a warranty that the course advised will necessarily succeed. The maxim is *spondere peritiam artis*—it is not *operis*. Where the result depends upon exact rules, which should be known to a skilful expert, it may be if failure results from a deviation from such rules it is proof of a breach of this warranty of skill, but where there is no exact rule the position is different. An engineer may with certainty predict the strain steel will bear, and also its contraction and expansion in varying temperatures, but who could say that an architect lacks skill simply because his opinion proves erroneous as to the strength of old timber when, as in a case like the present, one set of experts condemn and the other set vindicate the character of the scantlings?

How does the case arise? On cutting the joists for making the lift the tenants were alarmed at the condition of the wood. The floors were opened up, and not only the joists, but the bressummers caused them further alarm. They brought in an architect who calculated the bearing capacity of the joists. This gentleman has not been called, but it appeared from his report, which was put to Mr. Leslie, that he had not, for some unexplained reason, used the usual formula—he had squared the breadth and not the depth of the scantlings. I asked Mr. Leslie to work these figures out on the commonly accepted formula, and it made a difference between 72.9 cwt. distributed load to 182.25 cwt. I don't say this fact makes me prejudge the evidence actually adduced on behalf of the plaintiff, but it is impossible to avoid feeling that some misconception may have in the initial stages affected the judgment of the plaintiff's advisers in launching these proceedings.

Now, to my mind the real gravamen of the charge is that the defendant permitted timbers, joists, and bressummers to be used which were in fact defective. In not rejecting them he was, it is said, guilty of negligence—not lack of care, but lack of skill. His constant attendances on the site were unchallenged. The evidence as to the wood is very conflicting, and I found difficulty in coming to any definite conclusion as to whether it was in fact defective until Professor Lefroy gave his evidence. Unfortunately, he only examined the specimens in court and therefore did not see the bressummers which, of course, are the all-important



members. To my mind he completely vindicated the soundness as weight carriers of the joists. He said they were not weakened structurally, and that the depredation of the anobium represented merely the normal infestation of old timber. It is a beetle, he said, which merely attacks the outer sap wood. I accept this testimony, which was practically unchallenged, and I desire to say that his evidence was most convincing. I think the real point of danger, if any, is where the edge of the joist rests on its support, and I made, on my view, a careful inspection of their engagements, and though rather galled, they appeared sound. Apart from the conclusion I have formed that these joists are sound and were properly left as floor supports, I should have hesitated to find Mr. Hider guilty of negligence even if I thought them unsound after having the evidence of Mr. Woodward and Mr. Leslie and applying that evidence to the principle which I understand underlies the warranty of skill.

Now with regard to the main bressummer, I have had Professor Lefroy's assistance, and so far as I could judge by personal examination, the anobium did not find a fine old beam very palatable. The surface, however, the centre was sound. At the point above the fitch beam there was decay to the depth of just over 1 inch, gradually decreasing till about 2 feet off on either side the beam was absolutely sound. I think Mr. Hider did himself credit by at once and without any hesitation admitting this condition. I also accept his statement that when the work was done the beam showed no sign of decay at this point. Am I, on this ground, to find him guilty of negligence? Most decidedly no. Whether moisture collecting at the lowest level subsequently affected the fibre when the wood fibre passed from compression I don't know—but to put upon an architect a finding of lack of skill for a faulty diagnosis of this sort I think, unjustifiable.

After some doubt I accept Mr. Leslie's view that the decay in this spot does not affect materially the strength of the floor, and the suggested strengthening Mr. Hider proposes is really made *ex majori cantetâ*. I further find that the fitch beam without the fitch plate gives ample support at the ends and that the fitch plate was a proper method to strengthen the beam where it carried the load. Perhaps filleting was not an ideal construction, but as against that the only alternative suggestions were the use of two longitudinal steel joists in lieu of the fitch beam, and I have great doubt whether, at the time, these suggestions could have been carried out, having regard to cost and general building conditions.

I do not think that I am called upon to decide on the conflicting evidence given whether these floors will carry the rolls stacked five feet high, carefully placed as Mr. Hider and his witnesses assert, or whether a load of approximately this character is a dangerous load. In the view that I take of the facts these matters do not affect the defendant, and I should be wrong to prejudice any case that may arise between parties not before me.

In my judgment, the defendant exercised the skill which the law requires of him as an architect, and he carried out his work of supervision with all proper care and attention and skill. Having regard to the condition of these premises before Mr. Hider was called on the scenes, I consider that, having regard to the great difficulties attendant on all building operations in 1916, the plaintiff may be congratulated upon the present condition of the premises, they certainly come up in appearance to the requirement of having the necessary finish to appear as new as possible, and I see no reason to doubt that with the care and attention which all old buildings necessarily demand they should last sound and substantial in their present condition for many years.

It has been impossible to go into every detail of this case in my judgment, which has occupied some considerable time, but not more than its importance warranted. I hope that the parties will give me credit, nevertheless, for having considered carefully all the evidence and all the arguments addressed to me.

I desire, if I may say so, to acknowledge that I have had every assistance from counsel and experts, and it only remains for me to say that the defendant is entitled to my judgment with costs.

## Royal Institute of British Architects.

The following are notes from the minutes of the Council Meeting on January 31:—

*The Ministry of Health and the Scale of Fees for Housing.*—The members of the R.I.B.A. Deputation to the Ministry of Health reported that a satisfactory agreement had been arrived at with the Ministry on various points connected with the fees for housing work. The terms agreed upon will be published as soon as possible.

*Annual Conferences in the Provinces.*—A Committee was appointed to arrange for the holding of annual R.I.B.A. Conferences in important provincial centres.

*Control of Competitions.*—A proposal by the Competitions Committee for bringing the Allied Societies into closer touch with the R.I.B.A. in the control of competitions was accepted by the Council.

*Public Lectures on Architecture.*—The Council adopted a programme prepared by the Literature Standing Committee for a series of public lectures on architecture by distinguished authorities.

*The Royal Gold Medal, 1921.*—The Council unanimously adopted the recommendation of the Royal Gold Medal Committee in favour of the nomination of Sir E. L. Lutyens, R.A. (F.), as Royal Gold Medallist for the year 1921.

*The Government of Ireland Act.*—A letter was received from the Chief Secretary for Ireland indicating the possibility of sympathetic consideration of the proposals put forward by the R.I.B.A. on behalf of the professional and technical division of the Irish Civil Service.

*Architects' and Surveyors' Assistants' Welfare Committee.*—The Council requested the Practice Committee to confer with the representatives of the Surveyors' Institution on the proposals submitted by the Assistants' Welfare Committee.

*The British School at Athens.*—The Literature Committee was asked to consider the advisability of giving further financial assistance to the British School at Athens.

*Reinstatement.*—Three members were reinstated under the provisions of the By-laws.

## Competition News.

At a meeting, on the 3rd inst., of the Glasgow Education authority, the Committee on Competitive Plans for the new Hillhead school submitted a minute which stated that with regard to the second competition, Sir John Burnet, the assessor, had indicated certain amplifications of the instructions and conditions which his study of the plans submitted for the first competition had suggested to him, and that they recommended that Sir John Burnet be authorised to draft such alterations as he might consider advisable and report to the Committee. The authors of the ten plans selected from the first competition will now compete with the ten invited architects. The minute was approved.

MESSRS. GEORGE WILLS AND HENRY WILLS, who gave large sums towards the University of Bristol, have contributed a further £200,000 to finish a substantial extension which is being erected entirely at their expense as a memorial of their father, the late Mr. H. O. Wills, the founder of the University. The new block is being erected at the top of Park Street. Not only is it proposed to make the great hall available for certain public purposes, but the hall, the libraries, the conference room, the council chamber, and other public rooms are being placed in direct communication with the Municipal Art Gallery and Museum, so that the whole range of the institutions at the top of Park Street may be made available as a single building for public purposes on such occasions as the assemblage of a congress or the annual conference of a national society or association. The architects for the block in course of erection are Messrs. Oatley & Lawrence, of Bristol.



## Stratford-upon-Avon in the Sixteenth Century.—III.

By the Rev. Edgar I. Fripp.



SIR HUGH CLOPTON'S BRIDGE (admired by LELAND in 1542).

## 3. THE BRIDGE.

SIR Hugh Clopton not only left money for the rebuilding of the Gild Chapel, but conferred upon the town the lasting benefit of "a sumptuous new bridge and large of stone." Thus it is described by John Leland, who rode over it on his way from Warwick and Charlecote to Stratford. "In the middle," he says, "be a six great arches for the main stream of Avon, and at each end certain small arches to bear the causey, and so to pass commodiously at such time as the river riseth." The previous bridge, he informs us, was of timber and "very small and ill, and at high waters very hard to pass by." Trade improved after the approach to Stratford from London and Oxford was rendered secure. Bridge Street prospered. In it were the four chief Inns, the "Bear," the "Crown," the "Swan," and the "Angel." Distinguished visitors were received at these hostels and waited upon by the borough authorities. Middle Row divided Bridge Street for half its length into Fore and Back Bridge Street, and at least one passage, called the Chure, connected the Fore and the Back. Here were taverns, a blacksmith's shop, butchers' shops and shambles, bakeries, haberdashers' and drapers' shops, a tannery, and the shoemakers' quarter. The houses were small, back to back, and crowded together. Sometimes two or more were made into one. Middle Row and the Back and Fore were, in fact, a hive of industry, probably the busiest part of the town.

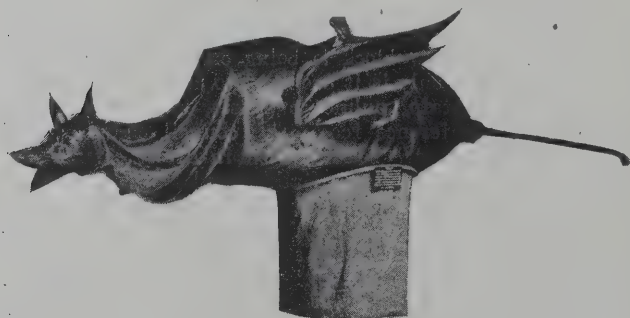
Clopton's bridge, called the Stone Bridge and the Great Bridge, to distinguish it from the wooden footbridge below the Mill, was entrusted to Wardens, annually elected at the Bridge Ale in Rogation time. Various small properties bequeathed or given for the purpose provided a revenue for maintenance and "reparations." For extraordinary expenditure, as in 1524, when two arches were rebuilt, the "charity of well-disposed people

both of the town and other places" was called upon. During Latimer's episcopate (1535-1539) the date of the Bridge Ale was changed from Rogation time, with "superstitious" and sometimes "riotous" associations to Passion Week, and contributions were made, if levied, at the feast on behalf of the funds of the Wardship. Other changes were effected about that time. The Saint George and Dragon pageant was taken over by the Bridge Wardens, and with it the upkeep of Saint George's Altar in the Parish Church. The saint rode on horseback through the town, clad in armour, leading the dragon (borne, as at Norwich, by a man whose head and shoulders were concealed in its body), and followed by warriors with pikes. This took place on Holy Thursday (Ascension Day), when candles were sold and lighted at the altar and offerings were made in support of the bridge. The wardens appear also to have contributed towards the Shepherd scene in the Nativity pageant at Christmas.

## 4. THE PARISH AND COLLEGIATE CHURCH OF THE HOLY TRINITY.

The church was in Old Stratford, and outside the borough; and as life and business gathered first about the Gild Hall, and then about the Market Cross and Bridge Street, it was left in lonely and restful beauty. Nowhere is a great town-church more serenely situated. Apart, yet almost everywhere visible, lifting its head above the trees, it reposes, as it has done for centuries in its quiet God's Acre, on the bank of the softly-flowing river, approached by an avenue of pollards—the very home of peace.

The stately edifice owes much to John of Stratford, a native, who went to Oxford and became Archdeacon of Lincoln, Bishop of Winchester, Lord Treasurer to King Edward II., Lord Chancellor to King Edward III., and Archbishop of Canterbury (1333-1348). He rebuilt the south aisle and founded a chantry for five priests, endowing it with lands and bestowing upon it the rector's house which he purchased from the Bishop of Worcester. Another Stratford man who rose to eminence in the Church, Rafe of Stratford, a nephew to Archbishop John, a canon of St. Paul's and eventually Bishop of London (1340-1354), built a house for the priests adjoining the churchyard. This was the "mansion-place" seen by Leland and described by him as "an ancient piece of work of square-stone hard by the cemetery." From the reign of King Henry VI., when the chantry was turned into a college, Rafe of Stratford's house was known as "The College." As such it appears in Leland's "Itinerary" and in the Borough Accounts.

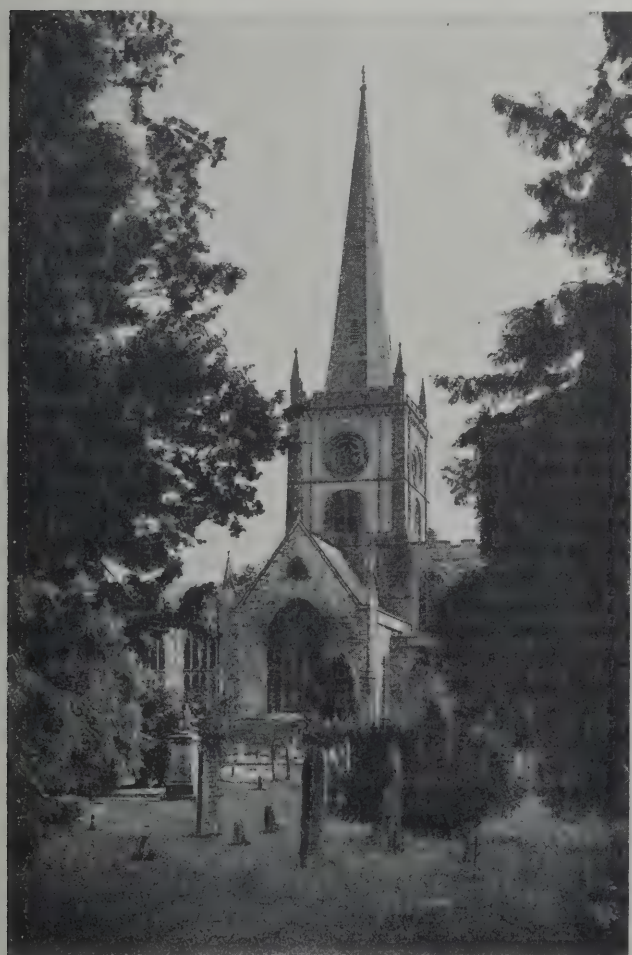


THE NORWICH DRAGON.



A Warden of the College who died in 1491, Thomas Balsall, Doctor of Divinity, rebuilt the choir of the Church and erected for himself an altar tomb on the north side, which is still there, though the brass and inscription are gone. A later Warden and benefactor was John Colet's friend, Doctor Rafe Collingwood, who, pursuing the intention of his predecessor, and in the spirit of St. Paul's School, made provision for four choirboys to assist in the services of the Church. They were to "come by two and two together into the choir to matins and vespers, according to the *Ordinale Sarum*; and at their entrance into the Church, bowing their knees before the Crucifix, each of them say a *paternoster* and an *ave*, should sit quietly, saying the matins and vespers distinctly, and be observant to the offices." They lived in the day time at the College, and were "not to be sent upon any occasion whatsoever into the town." At dinner and supper they were "to wait at the table and read upon the Bible or some other authentic book." They were not to enter "the buttery to draw beer, for themselves or for anybody else." After dinner they went to the singing-school, where their master, "one of the priests or clerks appointed by the discretion of the Warden," instructed them in singing to the organ. Their dormitory was the upper storey of an ancient building, older than the Church and outside it, against the north wall of the chancel, but entered from the chancel by a flight of steps. Thither they repaired at eight o'clock in winter and nine o'clock in summer. They slept in two beds in couples. Before putting off their clothes they said *De profundis* with a loud voice and prayers concluding with "God have mercy on the soul of Rafe Collingwood, our founder, and Master Thomas Balsall, a special benefactor." Beneath their dormitory, and partly underground, was the bone-house or charnel-house which filled Juliet with horror:—

O, bid me leap, rather than marry Paris,  
From off the battlements of yonder tower;  
Or shut me nightly in a charnel-house,  
O'er-covered quite with dead men's rattling bones,  
With reeky shanks and yellow chapless skulls.



COLLEGIATE CHURCH OF THE HOLY TRINITY.



THE SANCTUARY KNOCKER.

The boys had some courage to sleep in such a place, and probably were not sorry to lie two in a bed.

At the survey of 1534-5 the income of the College was £128 *per annum*. Master John Bell (afterwards Bishop of Worcester) was Warden. Under him were a sub-warden, three chaplains, three clerks, and the four choristers. Robert Porter was steward, and Hugh Reynolds bailiff, of the estate. Wills of two of the priests give us a glimpse of pleasant fellowship. Sir Robert Middleton, chanter, in April 1533 left 5s. to the sub-warden, Master Gilbert Bourne (afterwards Bishop of Bath and Wells), his best surplice to Sir John Payne, curate of the parish, his short gown to his brother-chaplain, Sir Richard Burrows, and to Richard Biddle, one of the clerks, his "best bow and arrows." He bequeathed 12d. to each chaplain; 8d. to every clerk, 4d. apiece to the choristers. Nor did he forget the Priests of the Gild, leaving them 8d. each. His total effects were valued at £15 5s. The will of Sir Richard Kirstone is later—August 31, 1543. He was "one of the Vicars." He directed that he should be buried in the Parish Church, the College priests and the Gild priests uniting in the service. Among his gifts were his best petticoat to the chanter, his second petticoat to the parish priest, his best cap to Sir Richard Burrows, and his books (unfortunately not catalogued) equally to the chanter, the parish priest or curate, and Richard Burrows. He remembered "the brotherhood of the Gild," leaving them 20d. His supervisors were trusted townsmen, both glovers, Thomas Dickson *alias* Waterman, and Robert Locke, and the witnesses included the Schoolmaster of the Gild, Sir William Dalam.

Stratford, let it be noted, had its bow-and-arrow makers, such as George Smith, whose will was made November 30, 1537. His inventory includes "ten thousand good feathers, 13s. 4d.; two hundred sheaves and a half of timber, £3; one hundred arrow-heads, 18d." Roger Ascham had something to say of feathers, shafts, and heads in his "*Toxophilus*," written in 1544.

A relic at the Parish Church which must have impressed the choirboys and young Shakespeare is the so-called Sanctuary-kocker on the porch door. It at least familiarised the Poet with the idea of sanctuary, which he introduced rather absurdly in his *Comedy of Errors*, v. 1. 91. When Antipholus and Dromio run to a priory for protection the Abbess shelters them:

*Adriana*: Good people, enter and lay hold on him.

*Abbess*: No, not a creature enters in my house.

*Adriana*: Then let your servants bring my husband forth.

*Abbess*: Neither; he took this place for sanctuary.



## Imperial Building: What We may Learn from Rome.\*

By W. G. Newton, M.A.Oxon., M.C.

WE carry away from our schooldays a misleading and parochial idea of Rome. We read about patricians and plebeians; Marius and Sulla, the Gracchi and the Punic Wars, but hardly a word about the Empire. The historians of the nineteenth century were interested in party government and the Republican idea. They drew a veil over the Empire, as though it were something indecent. Moreover, the great writers whom we studied, Virgil and Livy, Cicero and Horace, came at the end of the Republican period, and their eyes are on the past. Troy town is almost more to them than Rome. Julius Cæsar, for them and for us, was the last of the Romans.

But he is rather the first. A glamour is cast on the Republican ages by the great names of Latin literature. But the small triumphs and homely virtues which they celebrate are as a play in a country village. Now a vaster stage is set. Beginning with the generation when Christ was born, for three centuries and more Rome is the centre of a great system of civilisation stretching from the Cheviots to Egypt, from the Straits of Gibraltar to the Garden of Eden. For three centuries and more this quarter of the world, with the Mediterranean lying like a lake in the middle, with its roads forming a huge nervous system centring on the City of Rome—all these peoples who now are England and France and Spain, the Rhine Provinces, the Balkans, the Middle East, Egypt, and the long north coast of Africa, lay in a profound peace. There were short internal wars over the imperial succession, and a certain amount of frontier disturbance, but, speaking broadly, there has never been so long a period when so many different peoples have lived an ordered and tranquil life. It is as if there had been no wars in Europe and Asia since the Spanish Armada.

Everywhere cities grew and flourished, built on similar plans, governed on similar lines. It has been calculated that there were more than two thousand of them. The couriers on the great roads could travel one hundred miles a day. A bulletin of news was issued daily, and read in public throughout the Empire. Everywhere the same types of building recur; the streets of Palmyra recall those of Milan; the traveller from Rome would find great bathing establishments in Paris or in Gloucestershire; the stretching aqueducts of the Campagna are echoed in Spain or North Africa. The known world was a great family.

The army, too, bore a great part in this unification. The Roman Empire was in its essence a military organism. The whole civil administration, the whole system of meeting the demands of the world, whether for corn or for statuary, for clothes or for building, became gradually a great organisation run on similar lines to the organisation of the army. The legions are recruited locally. Great military camps grow into prosperous towns. The Roman soldier under the Empire is not a specialist, he is a settler. And he is ready to turn his hand to anything, to building an amphitheatre, working a silver mine, or adding temples, bridges, and aqueducts to the adornment of Egypt.

And at big historical crises the legions, imbued as they are with the ideas and manners of their province, of Syria, of Britain, of the Rhine valley, are run like a shuttle through the fabric of the Empire, weaving together in one varied whole the thought of its most distant parts. At the centre is the Emperor and his governmental system.

What of the people who formed the mass of the system?

There were four classes—slaves, freedmen, and two classes of the free. All ancient civilisation rests on a basis of slavery. In the Roman Empire, which touched at every frontier less civilised and, at first, weaker peoples, there was no lack of slave labour. It was no uncommon thing for a great Roman to have four or five

hundred slaves in his immediate household. They were often treated with great kindness, and would gradually hoard enough money to buy their freedom.

The freedmen were the most enterprising and wealthy class in the community. They were not ashamed, as the free-born citizen was, to engage in trade and speculation. They became permanent secretaries at the heads of the various branches of the imperial civil service. Yet, important and wealthy as they were, the barriers of class distinction were such that they remained a despised class, looked down upon by the sorriest garlic-eating loafer who was free-born.

The free-born were sharply divided into patricians and plebeians. The former distinction, at first a question of lineage, became more and more confined to those who had held office (local mayors and the like) and their descendants. They had all the honours and a great deal of the wealth. But it was a social obligation, understood and accepted, that this wealth should be expended to glorify his own town, especially in building. The least important councillor or patron would signalise his election by building a temple or a bath-house. Countless inscriptions have been found all over the Empire recording gifts and bequests, the greatest part of them on objects of public utility—baths, theatres, aqueducts, new roads, and markets.

The plebeians had the material advantage of all this generosity and of cheap corn. On the other hand, there was little opportunity for ambition, little chance of rising, except for a soldier, and the indolence and lack of careers bred a class of loungers. They were subject to certain obligations, such as conscription for labour purposes when required.

This was the background of the Roman world. Who did the building work?

In the first place there were architects. We hear of them in the time of Augustus (the writer Vitruvius was one), in the time of Trajan, and Hadrian (who took numbers of architects with him on his marches), and Constantine (who gave orders for founding schools of architecture throughout the Empire). Their functions, as we learn from Vitruvius, were much those of the present day. They designed the buildings, drawing plans and elevations and perspectives. They also did levelling and surveying, and looked after fortifications and artillery work, like the architects of the Italian Renaissance.

In the actual construction, in the case of large public buildings, when it was not the work of the legions, we find a plain division into two classes, as is apparent both from documents and a study of remains: (1) The large mass of so-called unskilled labour, available from the labour conscription; (2) skilled tradesmen.

We all know that building in all its branches is a matter demanding very skilled co-operation. Yet the Romans continued to make the largest possible use of unskilled labour. To supervise this, and to do the more skilled work, such as the brick arches which reinforced the concrete vaults, and for masonry, carpentry, joinery, and decorative work, there was need of skilled men bred to the trades. To meet this need there grew up an interesting guild system, where men of a trade were combined together as a "corporation," in which membership was hereditary. The members were bound to give their labour on public buildings. In return the corporation was endowed with land, on the revenues of which the members lived.

In case of private works, one member of a corporation might act as a contractor. He would tender for a fixed sum, and make use of his fellow-members, and perhaps hire slaves for less skilled work.

Of course, when we think of Roman architecture as a series of colossal monuments we must correct this by remembering that the large things have survived, while the small things—country houses and farms, and shops and wayside temples—have perished. Yet theirs was a

\* Abstract of a lecture at the Victoria University, Manchester, on January 27.



**CONCRETE BLOCKS "KING" PLASTER SLABS**

**WALLS PARTITIONS ROOFS**

**FIBROUS PLASTER CEILING SLABS**

*Ferro-Concrete and Glass Constructions*

**"FERRO GLASS" PAVEMENT LIGHTS**

**"KING" CONCRETE GLAZING BARS**

**A. KING & CO.**

181, QUEEN VICTORIA ST., LONDON, E.C., and  
BRITANNIA BUILDINGS, LEEDS.  
Tel: City 2213 and Cent. 773, and Leeds 22712.

## Classic Radiator Characteristics

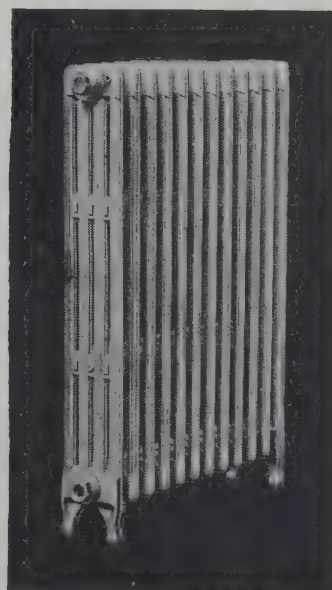
### 1. Beauty of Design.

The Ideal Classic Radiator makes a special appeal to that discriminating taste which demands comfort and elegance in the home. Its chaste beauty and well-balanced series of slender columns, with their simple fluting, make a harmonious whole, graceful in outline and inconspicuous.

### IDEAL CLASSIC RADIATORS

The Ideal Classic Radiator, however, is distinguished not only by beauty of design but also by important practical advantages.

Write for further particulars. Inspection of our Showrooms invited.



**NATIONAL RADIATOR COMPANY**  
LIMITED.

Offices, Showrooms & Works : HULL, Yorks.

Telephone : Central 4220. Telegrams : "Radiators, Hull."

London Showrooms : 439 & 441 Oxford Street, W.1.

Telephone : Mayfair 2153. Telegrams : "Liableness, London."

Agents in Great Britain carrying stocks of "Ideal" Radiators and "Ideal" Boilers:

Baxendale & Co. Ltd., Miller Street Works, Manchester.

William Macleod & Co., 60-64 Robertson Street, Glasgow.



heavy hand. We have only to look at the aqueducts straying across the Campagna or spanning a river-valley, as the Pont du Gard in Southern France, with a height of 160 feet and a length of 880 feet, to realise with what a ruthless disregard of labour and materials the Roman achieved what we do with a pipe in the ground. Or compare the main building of the Baths of Caracalla with the plan of St. Paul's Cathedral.

How is the great Roman vault built? Lavish and ruthless their conception may be, but they are straitened by two necessary economies—skilled labour and timber. For heavy work they can impress the forced labour of multitudes; for their skilled supervision they must go to the limited corporations. And the Roman countryside, where the building methods first hardened into a tradition, is treeless. There is no timber to spare for vast systems of centreing, which have to be struck when the work is finished.

To take the second problem first. They hit on a method of building which, with the scantiest possible use of timber centreing, enabled them to build a permanent centreing of brick, which was never struck and remained for all time a part of the vault. A few principal trusses, and planks between, would enable them to build their light network of brick. And the centreing would be shifted along the vault as required. Sometimes the network was not quite joined up. As a further economy, sometimes quite discontinuous double arches were built. Here there was evidently a tendency for the filling to drop out on the surface. So the next time they made a square or octagonal box and fixed it on the planking—whence comes the coffered vault.

Another cheap and simple way of making permanent centering was to use the two feet-square flat bricks on edge, to form a sort of plated centreing, upon which the mass of cement and stones was shovelled to complete the construction.

And now we come to the economy in skilled labour. The Romans were as well aware as we are that concrete mixing and laying is skilled work. So they didn't use concrete, but a system of alternate layers of cement and broken stone or pebbles, each layer thrown on with a shovel. The layering is clearly visible in remains of Roman work when examined. This was work which the unskilled pressed labourers could quickly learn and under supervision adequately perform.

So were raised the great vaults and domes of the Romans. We see no development and daring experiments with a great structural idea, such as the mediæval mason gives us in his poised vaults, or the Byzantine Greek in the shell-like dome of the Sta. Sophia in Constantinople. The vaults of the third century are no advance on those of the first. If there is any change, the workmanship is less good. But the Roman had done what he wanted. He had built a great barrel, bigger than any one had built before him. And he had done this with an economy of skilled labour and of timber which was necessary to him. To economise in the mass of men and material he saw no need. So he was satisfied with what he had done; and, being of an orderly and methodical nature, he stereotypes it. His successors would have the same problems to meet and the same economies to make. So it is filed for reference.

Another of the great contributions was a power of spacious, orderly planning. They were not the first who had planned towns. But the Roman had a larger field and larger ideas. His great colonnaded streets running from town-gate to town-gate, and crossing in the centre of the town (a direct development of the plan of the legions' fortified camp, as they went about the world on their business of civilisation); are found from the north of England to the borders of Mesopotamia. His whole Empire was a great plan growing out of his system of roads, which ran like straight corridors about it. The three outstanding qualities of the Roman idea of planning are straightforwardness, vista, and balance. He was by nature straightforward in idea. He would go, as his roads show, direct from one point to another. But where the body could go, the eye could go, too; and out of this

straightforwardness grew a love of the stretching vista, where the eye was carried through great openings and across sunshine and shadow to some monument or group where it would be content to rest.

We of to-day have lost something of the fine instinct for order, something of the large simplicity of the Romans, which we do right to regret. With electricity for power and light, with steam and gas and steel and all the material resources of modern civilisation, what would not the Romans, with their enthusiasm for building and their developed sense of the town as a unity, have made of our great cities?

We are the heirs of the hurried business instincts of the nineteenth century. We cannot right it all in a day. But we can at least be impatient of what is mean, and eager to welcome what is good. The architect, like the dramatist, is to some extent dependent on the minds of others. The building, as it gradually shapes itself in his brain, is half fashioned by the invisible hands of those who will use it. In his imagination, they go about their business in it, and create his plan. They glance at it in passing, and he sees it in perspective. Through their eyes he views it from far off, and so his elevation develops. The architect is rather the mother than the father. The building has many fathers. The Romans marched in columns of fours in to the unknown places of the world. Yet we have carried our natural instincts of individualism a little far. We have felt it was no concern of ours what sort of house our neighbour built, or what sort of street our council planned, so long as it meant no addition to the rates. We have lived by ourselves too long.

The War brought us closer together for a space. We felt the drive of a common impulse. The man who had grown accustomed to his own front-door with its key and knocker has shared a waterproof sheet with his neighbour under the stars. But we are quickly freezing up again.

But it is not too late if we will all help. And in this matter of the pleasantness of buildings, the architect needs the co-operation of his fellow-citizens. In the mass he can only express what they want expressed. Architecture is, and cannot but be, the characteristic seal of its age—whether it be the blowsy good-nature of the mid-Georgian or the self-conscious mysticism of the mid-Victorian. The most original of us will in the end be bent to your will. What is your will?

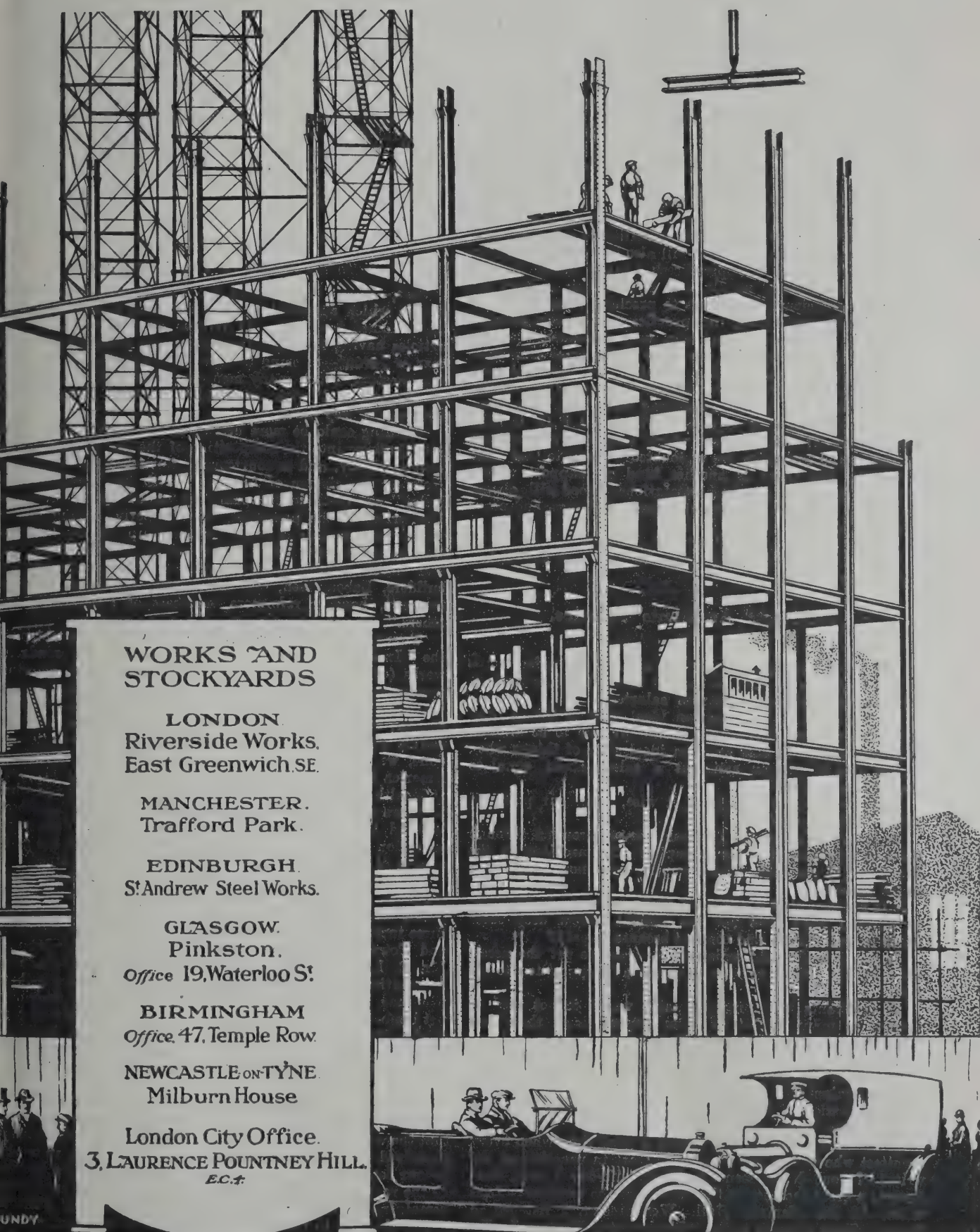
At least I think it worth while to be interested. Be all agog to see what is being done and where we are going. Be violent about mean streets and dingy railway stations, about ignoble building and planning as expressing ignoble thought, a contempt for fellow-men. As you see a scaffolding going up, crowd round and ask, what are they doing to express in some way what I think and what city should be—what I want my children to live with? Remember the old Greek saying that mean buildings make a mean people.

The architect is not the man who meets a merely material need for so many cubic feet of space. Architecture, like every art, is the materialised expression of emotion through the intellect, with joy. Don't say this doesn't matter. What you want is a house to live in, a shop to buy in, a street to walk along. Man was not born simply to eat, and propagate, and die. These things are necessary, indeed, but are the mere ground-work of life. What you want is a house where you and yours can live with delight, a street where it is a spiritual refreshment to walk.

All these things can come but slowly—and not at all, if you don't desire and insist on them. The architect will depend on your enlightened ardour. You will depend on his trained direction. Architects were never more alive to the needs of the day. A thousand students are now being trained in three- or five-year courses in schools of architecture all about the country to give you this. But the artist without the understanding and good will of his fellows is naught. Remember it is a play. The players have their part as well as the writer. The stage is set. Will you hang in the wings, or pass by indifferent in the street?



# REDPATH BROWN & CO., LTD. CONSTRUCTIONAL ENGINEERS



## WORKS AND STOCKYARDS

LONDON  
Riverside Works,  
East Greenwich, S.E.

MANCHESTER.  
Trafford Park.

EDINBURGH.  
St. Andrew Steel Works.

GLASGOW.  
Pinkston.  
Office 19, Waterloo St.

BIRMINGHAM  
Office 47, Temple Row.

NEWCASTLE-ON-TYNE.  
Milburn House

London City Office.  
3, LAURENCE POUNTNEY HILL.  
E.C.4.



## Correspondence.

## Architects' and Surveyors' Assistants' Professional Union.

To the Editor of THE ARCHITECT.

SIR,—In justice to the association of architects, surveyors and other technical men in the building industry referred to in your "Notes and Comments" of this week's ARCHITECT, I trust you will find space for the following reply.

While not quarrelling with the traditional attitude of THE ARCHITECT towards labour, and conceding that you have a perfect right to your own prejudices, I think it would only be fair to a comparatively new organisation to await its rash deeds before condemning them in advance. You will not deny that by tying their own hands for close on twelve months in order that the professional bodies should be free to deliberate on their proposals uninfluenced by outside comment, the A.S.A.P.U. has shown quite unusual patience and restraint. Why taunt them, then, with going a little too far? Again, your remark "that no assistant worth his salt means to remain an assistant" is both misleading and cruel to a large body of men who, as anyone who has thought for a moment must know, have literally no chance whatever of becoming practitioners. If they had, it is quite certain that a large proportion of those now practising would cease from practice by reason of their inability to dispense with their present assistance. You will also be aware that under the Scottish system of apprenticeship many offices have as many as ten articulated pupils, and even in this country the latter are sufficiently numerous to preclude them from any reasonable chance of going into practice on their own account.

Finally, while you do not seem very enthusiastic on the subject of pre-war salaries, you refer to the great compensation—"a very friendly feeling prevailed, &c."—but it must be recognised that the latter will not purchase either clothes or sustenance, and to-day something more than this benevolent contemplation is required. The A.S.A.P.U. is fully appreciative of the support which very many practising architects and surveyors are undoubtedly ready to lend their movement, but there is another kind of support which, whilst almost gushing in its protestations of good will, always stops short when the question of pounds, shillings, and pence arises.—Yours, &c.,

PERCY W. FARMER

(Chairman, Executive Council, A.S.A.P.U.).

February 5, 1921.

## Architects' Assistants' Salaries.

To the Editor of THE ARCHITECT.

SIR,—I ask for space in your columns to say a few words on what appears in your Notes and Comments this week in reference to architects' assistants' salaries.

At first sight it does seem an ideal state of things from our point of view that pupils should pay us to be allowed to do our work. It does seem an ideal state of things when we are able to pay an assistant a salary about equal to that of a policeman.

But, on second thoughts, is it wise, from our point of view? Does it pay?

Is it not true that the profession is overcrowded through the past existence of so many pupils? One architect in the North has, I am told, fifteen pupils, even now, and not a single assistant.

Is it not true that a well-paid assistant works better than an ill-paid one? Did not the ancient Greeks keep their slaves in good health and comfort because it paid?

Is not a badly-paid assistant, in order to get the necessities of life, driven to start in practice in opposition to his chief?

If assistants were properly paid, would it not tend to prevent so many architects from cutting down their fees below the scale fixed by the R.I.B.A.?

Would it not be a scandal to the profession if the facts of assistants' salaries were made public? We already have Dickens against us.

The question of whether it is right or wrong I do not touch in this letter.

I am afraid there is not coming a good time when every architect who wishes will be able to start in practice, as the writer of your Notes seems to think. To-day I read that there is a great increase in the number of the workless. Last night, in the Central Hall, Westminster, I listened to Bernard Shaw's speech to the "Black-coated Workers." He warned them that the manual worker goes on organising and

organising, and that when the Labour Party gets into power it will mean more and more political control for the manual worker. Then, he warned them, the mental workers will go under, unless they are also organised. For the past, he explained, has produced an antagonism between us and Labour. In the past Brains exploited Labour.

That is what he told us, and that is the view of hundreds of brilliant thinkers.

We are on the eve of great changes, and it is the duty of every professional man to see that he is organised into a union, or call it a guild, society, an association, or what you will—all these words mean the same—a collection of individuals organised for service and to give voice to their interests. The R.I.B.A. has failed to represent the assistants in a scale of salaries; why, then, should not the assistants call themselves what they are—a Union? The mediæval masons' guilds fought for their rights and built our cathedrals. They fought for the freedom that a living wage gives. I will quote the final words of the R.I.B.A. prize essay for 1914: "The triumphs of the future will spring from the attainment through organisation, by the workers of the world of the one indispensable element of great art—Freedom." Until the assistants band themselves together into an organisation they will not be free from penury or free to do great art.—Yours, &c.,

February 5, 1921.

F.R.I.B.A.

## "As Others See Us."

To the Editor of THE ARCHITECT.

SIR,—May I be permitted to commend you for the leading article which appeared in your last week's issue under the above-named heading. It follows upon a series of your articles having for their foundation the intention—without fear or favour—to bring to light facts relating to the housing question, which many men connected with the Ministry of Health, and with so-called "Labour," have been so desirous to keep dark.

Nothing could be more useful, at the present time, than your probing into the composition of the list of persons who have so kindly, and so courteously, furnished the "National Housing Association of America" with the foundations of belief set forth in the pamphlet issued by its Secretary. The writer of the pamphlet, very properly, during his six weeks' visit to this country, gathered up all the information he could from what might well be considered the best and most reliable sources—viz., "Government officials, builders, Labour men, real estate men, architects, financial interests, housing reformers, members of Parliament, and others."

Twenty-three of these worthy gentlemen no doubt plied the "Innocents abroad" with those details of the wonderful works (of which some of them were the authors), showing, conclusively, that, after all, no country in the world could beat England on such matters as housing for the working classes; and when America reads, marks, learns, and inwardly digests what the gallant twenty-three have said and done, we may conclude that there will be such a rush by America for the officials and architects now in the Ministry of Health that Dr. Addison will be seriously disturbed when he hears that his henchmen and building experts have been induced to quit Whitehall, and sacrifice that daily consumption of tea, toast, and muffins, without which the great success of "Housing" could never have been attained.

A little disillusionment, however, may perhaps occur when we find that fifteen out of the twenty-three are connected with the Ministry of Health itself, while another three include Mr. Henry Aldridge, of the National Housing and Town-planning Association; Mr. Charles Purdon and Mr. R. L. Reiss, of the Garden Cities and Town-planning Association—i.e., eighteen out of a total of twenty-three who may fairly be said to be a little in favour of their own pet lamb—fortunately, however, "leavened" by Mr. George Hicks, President of the National Federation of Building Trade Employers; Mr. A. G. White, Secretary of the same body; and Mr. Edwin Evans, the President of the Property Owners' Association.

But, Sir, what is the use of all this "camouflage"? I know, and all who keep their eyes and their ears open know, that the whole trouble is centred in the disgraceful, cunningly contrived and organised laziness and tyranny kept up by the labour leaders, contrary, in many cases, I venture to say, to the real views of the workmen themselves, who have some remaining feeling for the hundreds of thousands of patriots—now sleeping in the fields of France and Belgium, and in the depths of the sea—who kept these non-patriots in the



# JAMES GIBBONS, LTD.

ST. JOHN'S WORKS WOLVERHAMPTON

## GIBBONS' "COTTAGE" WINDOW WITH PATENT SLIDING SASH

British Patents Nos. 12630/18; 123903/18 and 5535/19. Also patented in U.S.A., France, Belgium, Australia, New Zealand, Canada, India and South Africa.



Light in  
Construction  
and Fireproof.

Standard Sizes  
from  
Stock.

All outside surfaces easily cleaned from the inside of the rooms, the sliding portion hinged to open inwards and fitted with attachment for locking the casement when partly opened for ventilation.

The first  
Cottages in  
Great Britain  
completed  
under the  
Government  
Housing  
Scheme,  
showing  
Gibbons'  
"Cottage"  
Windows  
fixed.



These  
Cottages  
are also fitted  
throughout  
with Gibbons'  
Locks and  
Furniture.

FULL PARTICULARS ON APPLICATION.

London Office: 15 & 16 FISHER STREET, SOUTHAMPTON ROW, W.C.1.



safety of their English homes. And I should like to add words which I publicly spoke at the R.I.B.A. the other evening—viz., that nothing will be done in economical housing for the working classes until the Ministry of Health is entirely abolished, and a return is made to that private enterprise in the building trade which contributed to make England prosperous, and provided decent houses for those who could not otherwise have secured them.—Yours, &c.,

WM. WOODWARD, F.R.I.B.A., F.S.I.

15 Great James Street, W.C. 1.

February 8, 1921.

### Working Men's Dwellings.

To the Editor of THE ARCHITECT.

SIR,—During the past two years there have appeared in the professional and other papers, plans from which it was proposed to erect houses for the working classes; in some cases these houses were called ideal houses, this probably meaning that the arrangements were perfect, but in the majority of these plans they are arranged absolutely without any consideration for the privacy, comfort, or convenience of those who have to occupy the houses. Almost always the scullery is a passage from the back entrance to the front part of the house, although the scullery is more used, and in it more work carried on than in any other part of the house. It is generally here that the family ablutions are carried out, and the usual weekly clothes washing takes place, and much work is done which the occupant would or should keep private. There is a saying that familiarity breeds contempt, it also leads to don't care and want of decency. It may be thought that with a bathroom there is no necessity to wash in the scullery, that is so; but there is such a thing as custom or habit, and this cannot be got over. The man comes home from his work—sometimes a dirty trade—and he washes himself in the scullery, and he ought to be able to have the scullery to himself, not to be on view to people who may come to the door, and not to have people and children running in and out while he is there. The back door should not open into the scullery but into a lobby, from which the living-room and perhaps pantry, coals, &c., are reached. It is a very common arrangement in large working-class centres, where there are whole streets of houses without a break from one end of the street to the other, to put an entrance lobby between the living-room and the scullery for the purpose of obtaining what nearly all of these new houses ignore—a scullery which is not a passage, also privacy, and what is of very great importance, a means of preventing the steam and smell of washing from getting into the main portion of the house when the weekly wash takes place.

So important is the arrangement of the scullery that the comfort and convenience of the whole house entirely depend on this. In a London daily paper for Saturday, the 29th ult., there are plans illustrated for a pair of cottages which are presumably extra special as to the arrangements, as they are for presentation by an "Economic Co." Economy is certainly the key-note so far as comfort, convenience, and privacy in the arrangements go. These plans show an unnecessarily large entrance hall; 350 cubic feet could be saved in each house without reducing the accommodation; this would save £20 or more. The back-entrance door is in the scullery and there are three other doors; to reach the living-room from the back entrance you must pass through the scullery into the front hall. There is a boiler in the scullery which is not in the right position (why will people call this a copper? it is an iron article used principally for boiling clothes); there is a gas cooker which is very much in the way, a larder without a window, and something in one corner which is not named; there is no open fireplace. The living-room is of good size and well lighted.

The w.c. is on the chamber floor; this is an arrangement entirely out of place for this class of property in the country. Children are out of doors all the time they are not at school; several children running in and out in bad weather, through the scullery into the hall up and down stairs—several children and bad weather are quite possible. This arrangement is likely to cause indecency.

The back chamber is spoiled by the space taken up by the w.c.; if this were permissible it could be placed elsewhere; there is no fireplace. The second chamber is not improved by having a piece taken out for some purpose which is not quite clear, it may be a shower-bath; if so, this is not necessary.

The designing of cottages, judging from results, is a lost art. Probably that wretchedly illustrated report issued by the Local Government Board is partly responsible for this, but architects are not compelled to follow the bad ex-

amples there given; if they would only think, how would they like to live in houses erected from some of the plans which have appeared they might possibly do better. It would seem that if an architect receives a commission to prepare plans for this class of house he fits the rooms into a grid together with the various fittings regardless of arrangement. It is quite common to hear women say that they wish they who built certain parts of their houses had to live in them and do the work that they have to do.—Yours, &c.,

Rushall, Walsall.

JON. ELLIOTT

### The Failure of State Housing.

To the Editor of THE ARCHITECT.

SIR,—In your interesting and well-argued article of January 21 you say: No one can now build but the Government. But they only build cottages! and we architects and quantity surveyors were formerly employed to build villas, costing from £1,000 to £2,000, either for occupation or investment, no such work is now possible, as the former sum is only the cost of a cottage!

Then, Sir, the Corporations borrow the money to build them with at 6 per cent.; an ordinary investor requires 12 per cent. extra to cover the cost of insurance, collecting rents, painting, and leakages, which brings the rent to a serious amount. I very much doubt if we are yet anywhere near the peak, in the selling price of built property. The amount of leeway to be made up in building cottages and villas may be trifling; but we must have cinemas. Since the last school was built (before the war) the number of children must have increased considerably. We may do without building new schools, and without rebuilding insanitary areas in our cities; but the number of our motor cars-à-banc in summer render it a real necessity to build the garage and to widen the thoroughfares in provincial towns and cities, involving the demolition and rebuilding of property, and that is without counting any new factories, churches, or other luxuries; or, looking wider a-field, rebuilding of devastated Europe, which will require the same building-timber, lead, &c., that we require.

I really cannot see how the prices of buildings can come down, and the only alternative is higher—and very much higher—rents all round, which will not be an unmixed grievance, as rents have always been too low to tempt any but the jerry builder to build for investment, and even he was rarely successful, and never placed to reserve a sum to depreciate and ultimately rebuild, which necessarily creates the slum; although we witness the curious anomaly of a distinguished architectural journal sounding the praise of the jerry-builder on the principle, I suppose, of *De morituro nil nisi bonum*.—Yours, &c.,

W. HOFFMAN WOOD

Queen Square House, Leeds,  
February 2, 1921.

### Architectural Students' Competitions.

To the Editor of THE ARCHITECT.

SIR,—The present methods for the adjudication of students' competitions leaves very much to be desired; students' duty, apparently, ends when their drawings have been submitted, how, by whom, and when they are judged are things which they must not inquire.

No practising architect would submit a design in competition where the names of the assessors were unknown where the names of the assessors appointed did not inspire confidence in their ability to make a proper selection; an architect in such case can always do the obvious thing and not compete, but the student is not in the same position; he must compete, how, otherwise will his abilities receive recognition? yet, he must do so under conditions which to say the least, arbitrary, and slipshod.

Take, for instance, the Rome Competition, the "Competition Riband," so far as value goes, of architectural student competitions, the names of the jury are utterly unknown to the student; even those few people in the know only know the names casually, the full list is never published. The names when one does hear them, are those of eminent architects whose student days were over half a century ago.

The jury probably includes the names of one or two middle-aged men, but too small a proportion to ensure thorough appreciation and understanding of the present student.

Present-day methods of training and fashions in architecture are somewhat different to those of the mid-Victorian regime, and as a consequence too often the mediocre de-



# Efficient Lamps

An efficient lamp uses less electricity, gives a more brilliant light and lasts longer than an inefficient one. That is our interpretation of lamp efficiency. The Mazda lamp is unsurpassed for current economy, brilliance and strength—and therefore possesses that all-round efficiency which means the maximum amount of effective light at the minimum overall cost.

Lighting advice free.

The British Thomson-Houston Co Ltd

Mazda House, 77 Upper Thames Street, London, E.C. 4. Works: Rugby. Branches in all large towns.



## EMPIRE STONE DOOR HOODS

FOR  
**Cottages**  
AND  
**Housing**  
etc.



Delivered  
from Stock.

EASY TO FIX  
AND HANDLE

EMPIRE DOOR HOODS  
AND BRACKETS ARE  
MADE OF GRANITE CON-  
CRETE AND SUITABLY  
REINFORCED.

THEY ARE CHEAPER  
THAN WOOD, PRACTI-  
CALLY EVERLASTING  
AND DO NOT REQUIRE  
PAINTING.

WRITE FOR BOOKLET  
GIVING STANDARD  
SIZES AND PRICES TO

**EMPIRE STONE COMPANY, LTD.**  
Thanet House, 231 Strand, W.C. 2

Telephone:  
Gerrard  
8152

Telegrams:  
"Empirstone,  
London."



is selected in place of those designs showing evolutionary tendencies, which one would imagine the prizes were intended to foster.

Slackness in writing programmes and in assessing competitions is not confined to any particular body. I was myself on the jury of an important Institute prize recently, and was entirely ignorant until the Committee met, as to who the members were. I did not receive a list of the members, nor has a list been published. Some members of that Committee were probably unable to attend, but if so I was unaware of it, and one can easily imagine a case where the absence of a particular member would have necessitated an adjournment so that his advice might be obtained.

It has been my experience many times that the best students have failed to win the recognition to which their genius entitled them solely through the poor selective ability of the assessors or examiners to whom they submitted their work.

Students' competitions are not on a par with competitions for practising architects, and should be assessed differently; they (the students) should have the opportunity of expressing their aims and ideals to the jury, and as none better than the students themselves know where the shoe pinches, so all juries of students' competitions should have 50 per cent. of their members as little removed from the student as circumstances permit, not only in justice to the student, but also to ensure that tricks, cribs, and dodges should be exposed.

I would personally not advise any student to compete except under the following conditions:—

(1) The names of the jury or assessors should be published with the conditions of the competition.

(2) All competing students should be entitled to submit one name for election to the jury—all such names receiving nomination equal to 25 per cent. of the total number of competitors to be enrolled on the jury.

(3) A written précis of the award to be published (or delivered by a member of the jury).—Yours, &c.,

ROBERT ATKINSON, Director of Education.

Architectural Association,

34 and 35 Bedford Square, W.C. 1.

### "Architects' and the Public they Serve."

To the Editor of THE ARCHITECT.

SIR,—I feel I must write and tell you how much I appreciated your paper in last week's ARCHITECT. I suppose the objection to the architect cum builder scheme would be that the present scheme, possibly on the principle of "set a thief to catch a thief," is that the architect acts in the client's interests as against a predatory builder. He would probably hesitate to deliver himself into the hands of such a conjunction of combined opposites. I do not think the general public will ever care anything about architecture except on the practical side. As things are this is both a blessing and a curse—a blessing inasmuch as the average client will never find out an architect's mistakes as long as they are only artistic ones, and a curse because the architect will never be appreciated as the musician or novelist is, which after all may be good for him.—Yours, &c.,

M. H. B. SCOTT.

February 3, 1921.

### New Catalogues.

JOHNSON'S REINFORCED CONCRETE ENGINEERING CO., LTD., Lever Street, Manchester, have rendered their latest catalogue a very imposing and handsomely illustrated guide to the "Lattice" and "Keeton" systems. It is not yet twenty years since Johnson's steel-wire lattice was first used for reinforcing the floors of the Savoy Hotel in London. How success has led to success is evidenced by the large number of photographs reproduced showing a selection of contracts. The list includes factories, water towers, tanks and reservoirs, offices, bridges and piers, warehouses, schools, and retaining walls. But the catalogue is a good deal more than a picture book, for it describes as broadly as possible the solution of problems in reinforced concrete construction offered by Johnson's Lattice and Keeton system. The firm, we understand, will shortly publish a further edition which will be more of a text-book and will include tables, &c.

MINIMAX, LTD., can have no difficulty in finding material for a new catalogue. Since 1914 over 700,000 of their hand fire-extinguishers have been sold and more than 49,700 actual fires have been extinguished by "Minimax." The two latest brochures issued by the company show that a proportion, at

any rate, of the people who have benefited by the appliance did not forget to acknowledge handsomely their thanks. So it is only necessary to revise the list of customers and publish fresh testimonials in order to produce a new and convincing edition of their catalogue. The four claims "Minimax" are simplicity, effectiveness, economy, and durability. All these are well supported by the evidence of the pages. It is easy to understand why about a hundred fire brigades have adopted "Minimax" as a first aid appliance against fire.

### General.

HULL city engineer has been asked to prepare plans for bungalows, which he thinks can be erected for £650 each.

If the Government will find the whole of the money, the Darwin Housing Committee have approved of a recommendation to erect 150 houses on the Anchor and Mar House sites at a figure fixed by local builders.

THE Glossop Council, owing to pressure brought to bear by the Mersey and Irwell Joint River Commissioners, has now decided to proceed with their sewerage-extension scheme at an estimated cost of £35,600, and to apply to the Ministry of Health for sanction to borrow the necessary money.

THE Housing Commissioners have instructed the Nanwich Rural Council to reject builders' tenders for the erection of sixty-two houses in their district unless the builders substantially reduce the high cost. Failing this adjustment the Council are to consider the erection of houses by direct labour.

WEST Hartlepool Housing Committee has received sanction for the erection by direct labour of a further 17 houses on the Rist House sites which, with those already in course of construction, will make the number there about 300. It is hoped that work will be commenced on the Raby Road site within the next week or two.

CHIRK Rural District Council, in consequence of contractors' high prices, intend to ask the Ministry of Health to sanction the carrying out of the Council's housing scheme in Glyn Cerrig Valley by direct labour. The engineer states that such labour would save about £200 per house, and if he got a free hand he would use concrete or local stone.

THE Wigan borough engineer has submitted to the Council's Education Committee preliminary plans and sections of the proposed Council School, Leader Street together with a rough estimate of the total cost, which amounted to £56,225, being approximately £70 per head for 800 scholars. The plan and rough estimate of the cost have been approved, and the Director of Education is to forward the plans to the Board of Education for their approval.

AFTER a lapse of a number of years a dinner was last week held in connection with the Sheffield, South Yorkshire and District Society of Architects and Surveyors. The dinner was attended by about sixty members, and was presided over by Major C. B. Flockton, the President. The principal guests were Sir W. H. Hadow (Vice-Chancellor of Sheffield University) and Mr. A. J. Forsdike (President of the National Federation of Building Trades' Employers).

THE Kirbymoorside Rural District Council recently received six tenders for the erection of twenty-four houses. The lowest tender, which has been provisionally accepted, was that of Mr. Ernest Burrows, builder and contractor, Kirbymoorside, whose quotation was, per pair Type A houses, £1,507 5s. 4d.; per pair Type B, £1,761 18s. 5d.; outside works, &c., £1,195 11s. 11d. The next lowest tender was that of Mr. L. T. Oldfield, Malton, whose figures were £1,795, £1,884, and £940 respectively.

EDINBURGH and District Building Trades' Association held their annual general meeting in Edinburgh last week. The annual report referred to the joiners' strike of last year, and recorded with satisfaction the loyalty of the members throughout the nine weeks' period of the strike during the busiest season. It meant to many of the members very serious inconvenience. The demand by the operatives for a further increase of 4d. per hour from December 1 had been definitely refused and successfully resisted. During the year an important scheme of levelling up rates between sections and the grading of districts for Scotland had been accomplished, and the basis of settlement would effect adjustment of wages for the future for the whole country. As a result of the year's working the Association, it was reported, was numerically stronger and financially sounder. The following office-bearers for the ensuing year were appointed:—President, Mr. George Bain; Vice-Presidents, Mr. J. R. Watson, Mr. John Kennedy, and Mr. Wm. W. Finlayson.



## CONTENTS.

The Architectural Assistant . . . . .	PAGE 119	Industrial Council for the Building Industry . . . . .	PAGE 126
The Rome Scholarship Drawings . . . . .	120	The Rome Scholarship in Architecture . . . . .	128
"The Architect" Fifty Years Ago . . . . .	121	Forthcoming Events . . . . .	128
Illustrations . . . . .	122	Correspondence . . . . .	129
Notes and Comments . . . . .	122	General . . . . .	132
London Art Galleries . . . . .	123	Housing News . . . . .	132
Art News of To-day . . . . .	123	Trade Notes . . . . .	132
The Royal Institute of British Architects . . . . .	124	Housing Experiments at Walsall . . . . .	134

## The Architectural Assistant.

WE gather from some of the speeches made at the recent meeting that if assistants cannot compel architects to pay better salaries they will set up in practice collectively, and the practising architect will have to do his work entirely by himself. We do not suppose any practising architect would be greatly influenced by such a statement, and if there is room for a successful combination, gild, or Union of Assistants doing business as architects we think there is every reason why the attempt should be made. There is no reason why men should not practice a calling collectively instead of individually; if it can be done and if such a combination can secure employment from Labour or other organisations no one can object.

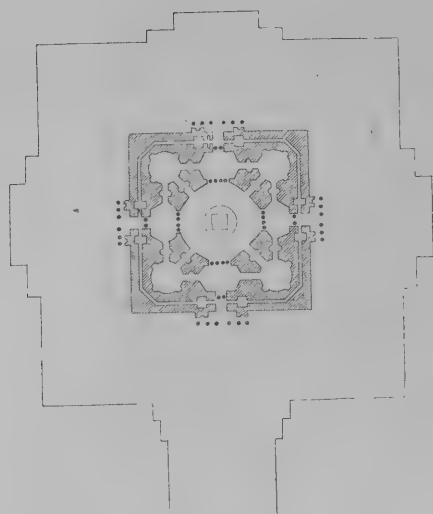
But a partnership between two or more men is often difficult owing to the divergent views of the partners; the difficulty of assessing the value of each to the other; the difficulty of satisfying each that the other is receiving his rightful share of the joint commissions, and other incidental points; and we should imagine the obstacles to forming a successful combination between a large number of men would be almost insuperable. Possibly the Architectural Association or some body formed within it might act as a company accepting and carrying out commissions, but this would inevitably resolve itself into a practice analogous to a private one managed by a few architects who employed assistants, and it is difficult to see how the outcome would be very much better for the assistants than is at present the case under the private practitioner. The profits to be paid in the form of salaries would not be greater unless the men organising and directing it were content to accept a smaller share of fees than they would if in private practice, and our knowledge of human nature is sufficient to lead us to think such altruism is unlikely. Alternatively we might devise a scheme in which architects requiring assistance for special work would arrange to get it carried out through the medium of the Architectural Association, with whom they would arrange and to whom payments would be made. But here again we cannot quite see that the position would be improved.

But if we are right in assuming the truth of the statements made to the effect that few assistants can hope under present conditions to start in practice for themselves, should not the Institute use the whole of its influence to discourage its members from taking any pupils at all until the demand and supply are more evenly balanced? And should not architectural schools and universities discourage instead of encouraging men to take up the pursuit of architecture? It is true that we are free agents—at any rate at the beginning of our careers, but we know that men often take unwise steps unless they are strongly discouraged from doing so. Should we not say to everyone the calling of Architecture is overstocked, and no one excepting a very small number of men of exceptional talent, good connection, and

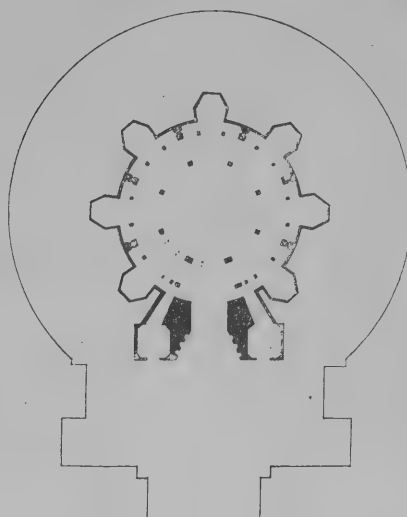
private means can hope to make a reasonable income out of it. For we know that we cannot increase our fees, and it is difficult to devise means for increasing the amount of work which falls to us. The best thing, in other words, might be a similar course to that which the advocates of "a Naval Holiday" propose, the deliberate curtailment of an output which is ruinous to all concerned. We do not suggest this in the interests of those already in practice, for we believe that most of the men now in practice will not find their chances greatly lessened by the competition of men who have yet to make a start, but we do suggest, if what we are told is true, it would be in the interest of the younger men to seek other openings unless a combination of unusual advantages affords promise of exceptional success. We may be told that what we suggest is not in the interests of "Architecture," but we do not believe it is for the good of any art that so large a number of men should embrace it as to render it impossible for most of them to secure an average meed of success. The alternative course we suggested, which practically means the recreation of the master builder in order to deal with speculative work, is perhaps no remedy for the present *impasse*. In the first place, it would mean the possession of a little capital, though we believe at the start and for small operations this might be put down at a sum not more, we should say, than £2,000, the builder-partner putting in an equal amount, and both men having means sufficient to support themselves for a couple of years without touching their capital. Such an amount of capital might enable the partners to build, say, two or three small houses, and after selling them at a profit the scope of their operations might be gradually increased. But such an undertaking involves more risk and responsibility than fall to the average architect, and if, as we have been informed, many assistants would rather remain assistants than have the responsibilities which fall to the average architect they would naturally shrink from greater responsibilities still. In any case, it is a proposal which would appeal to a certain class of men only, and as this is the only way we can think of by which more work could be created for educated architects it would not solve the present difficulty. If successful—and we believe it would be—it would do more to improve the architecture of the country than anything else, for it would gradually eliminate—not speculation in building—but uneducated and badly organised speculation.

But if men are to be trained in increasing numbers in the architectural schools the greater proportion of them must look forward, like the corresponding calling of engineers, to establishing themselves abroad; and were this accepted as a fact there should be in coming years more scope for those who are now in practice here, and a greater possibility of paying adequate salaries to those who have not attained to that position.

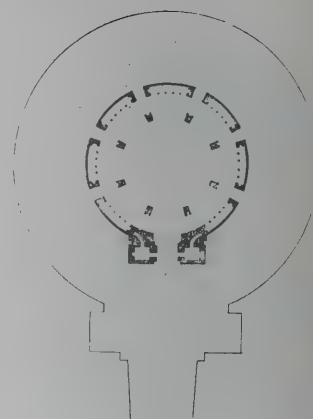
## The Rome Scholarship Drawings.



No. 21.



No. 22.



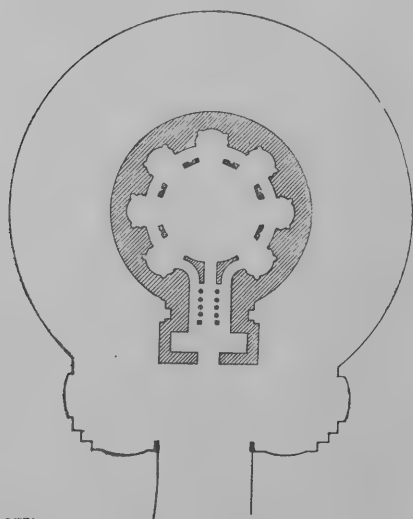
No. 26.

THE exhibition of work submitted for the Rome Scholarship at Burlington House is a very interesting one, and the work submitted in the preliminary competition in architecture is particularly so. The designs exhibited are well in advance of the usual standard attained in students' competitions, the subject—a National Pantheon, to be erected on a lake of 1,000 acres and approached by a causeway—having evidently appealed to the imagination of the competitors. The honours are almost evenly divided between the Architectural Association and Liverpool University, four competitors of the former and three of the latter forming the selected seven who will compete for the Scholarship. These seven designs are, we think, the best out of the seventeen who competed, and are especially interesting as showing the distinct types or trend of design of the two schools of architecture. The designs submitted by students of the Architectural Association are marked by great simplicity and directness of aim. In all of them the building is planned with one entrance only—that opposite the causeway, over which processions approach the Pantheon—and in this respect we agree with the critique we publish by a member of the Association. All of the three designs are circular in form. Nothing could be simpler than the plans of Mr. Bernard George and Mr. James H. White (Nos. 30 and 34), who have reduced the problem to its barest elements. One advantage of this sim-

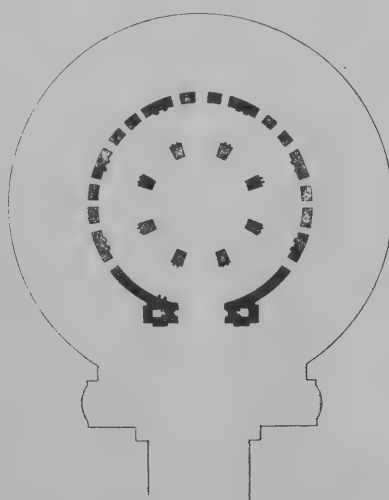
plicity is that the interior effect is concentrated in the treatment of the dome, which in more complicated designs rather loses its value as the primary feature of the building. Both these competitors score heavily in the internal treatment of the building, which is marked by excellent preparation and dignity. Design No. 26, by Mr. Edward Armstrong, belongs to the same category; in fact, all these designs suggest that they have been produced by students working in close collaboration and inspired by the same views. The finest design, in our view, produced by a student of the Association, is No. 22, by Mr. S. Roland Pierce, and we think it the strongest scheme submitted for the competition.

It is more ambitious in scale than the designs we have referred to, though still having a plan of great simplicity and directness. The dome suggests a recollection of that of Santa Maria della Salute at Venice, but is more restrained in its outlines and detail, and the whole scheme is more monumental in character than the other designs referred to.

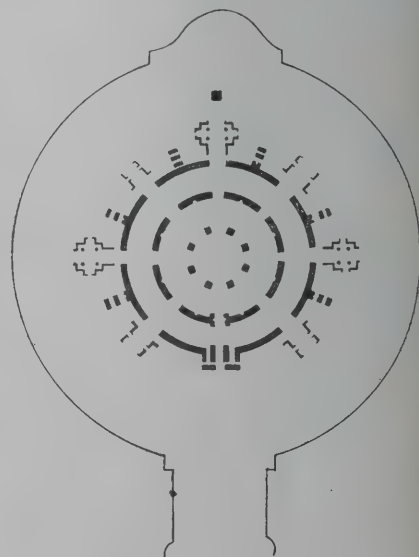
When we come to the three designs submitted by students of the Liverpool University we are confronted by a striking difference of type. They would seem to be inspired by such prototypes as the Victor Emmanuel Memorial at Rome, and are one and all cast in much larger and more grandiose lines than those submitted by the Association students. We might say that each one of them would cost



No. 30

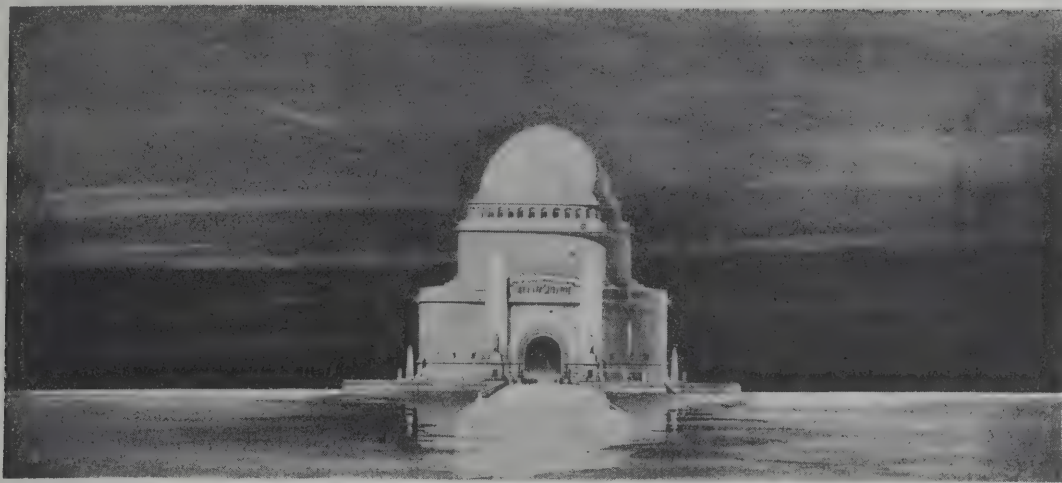


No. 34.



No. 31.





No. 34.—ROME SCHOLARSHIP COMPETITION. Design by JAMES H. WHITE (Architectural Association).

something like three times as much to execute as the other designs referred to, and in all of them the domed centre forms a part, rather than the whole, of the design.

The Liverpool students have in all cases but one conceived their schemes on the basis of four separate entrances, one alone of which faces the causeway, excepting in that of Mr. Bernard Miller (No. 31), in which the position taken up by these entrances in each of the other designs is marked by a small cruciform chapel pierced at the extreme outer end by a doorway. These three entrances appear to us to detract from the meaning of the building, and to be inappropriate, though they naturally afford some opportunity for external display. By far the best of the Liverpool designs is that of Mr. Eric R. Arthur (No. 21), in which the domed interior is flanked by accessory blocks, the whole forming a square mass. The great drum of the dome is finely treated, and the four entrances are good pieces of monumental design. Mr. William J. H. Gregory (No. 29) has sent a scheme which is colossal in mass, and which, although fine in general conception, is spoiled by the unrestful treatment of the four entrances, while Mr. Bernard Miller (No. 31) has been less happy in his conception than either of his colleagues. There is much good work submitted in some of the unplaced designs. Mr. Alfred Koerner (No. 33) sends an interesting design, in which the entrance is placed on the chord which cuts the outer circular plan, which is continued round the back and sides with a succession of terraces planted with cypress trees; and Walter J. Knight (No. 28) sends a free design based on Byzantine prototypes, in which interlacing arches are introduced. There is a suggestion of "Futurist" inspiration in this design, which, though clever, could never have had the least chance of selection in any competition, as it is the work of a man entirely dominated by a quaint fancy. We shall look forward with interest to the final result of this competition.

SIR ROBERT LORIMER, A.R.A., F.R.I.B.A., of Edinburgh, was last week elected a Royal Scottish Academician. At the same general assembly a similar honour was given to three painters—viz., Mr. James Cadenhead, A.R.S.A., Mr. George Smith, A.R.S.A., of Edinburgh, and Mr. W. Y. Macgregor, A.R.S.A., of Bridge of Allan.

MR. LOUIS AMBLER, F.R.I.B.A., has been elected chairman of the Council of the Society of Yorkshiremen in London. Mr. Ambler was previously chairman in 1907 and has been a member of the Council for eighteen years, having held the offices of honorary secretary and honorary treasurer for half of that period. The election again of a former chairman is unique in the Society's history.

## "The Architect" Fifty Years Ago.

FEBRUARY 18, 1871.

THE Session of Parliament just opened has been foretold to be a military one. With this we take little concern; but we may venture to predict that it will be an architectural one in some by no means inconsiderable degree. The House of Commons had scarcely had time to sit down on its benches before "Mr. G. Gregory asked the cause of the delay in commencing the building of the New Courts of Justice," and Mr. Ayrton rose to enter upon a lengthy explanation, commencing with the remark that "he was not surprised at the question." We learn from the right hon. gentleman that the state of the case is as follows. Five years ago the proposal in its original form was to buy land for £750,000, and build upon it at a cost of £750,000; that is to say, to go upon the very good average rule of equal values for ground and house. A Royal Commission, however, expanded the project to the ultimate extent of £900,000 for the land, and £2,350,000 for the edifice, these figures representing, as we are led to suppose, the ascertained estimate of Mr. Street's design. It was not unnatural that a minister of Mr. Ayrton's stamp should take mild exception to such totals; and accordingly, as he tells us, he "took steps to induce" the Commission, and no doubt the architect, to descend from these elevated ideas to the modest level of earlier proposals, and, in short, to adhere to the original limit of the comparatively trifling sum of one million five hundred thousand pounds sterling for the whole undertaking of housing at the public expense a profession which people are said occasionally to wish more appropriately accommodated in another and a wiser world. To bring Mr. Street, therefore, to reduce his design from twenty-three hundred and fifty thousand pounds of expenditure to seven hundred and fifty thousand became the task of the First Commissioner; and any architect of modest pretensions who has happened to be called upon to bring down a scheme from twenty-three hundreds of thousands to seven and a-half may be left to imagine what the task really was.

THE big rose window, known as the "Dean's Eye," in the north transept of Lincoln Cathedral, has now been again filled with its glass. When the war started it was removed and stored for safety in cases beneath the ruins of the Bishop's Palace under the vaulted chambers. The restoration was started in the early part of last year, and proved a difficult business.

THE annual general meeting of the Artists' General Benevolent Institution and of the Artists' Orphan Fund was held at the Royal Academy, Piccadilly, Sir Arthur S. Cope, R.A. (honorary secretary), presiding. The report of the Institution stated that out of 177 applicants for help in 1920, 38 had applied for the first time, whereas in 1919 out of 184 only 26 were new names. At least 23 women artists had been helped during the year. The Orphan Fund spent £1,799 on education, as compared with £1,562 in 1919. Mr. E. Guy Dawber, F.R.I.B.A. (hon. treasurer), presented the balance sheets. The receipts amounted to £20,996, and there was a balance at the bank at the end of 1920 of £11,196, which included portions of grants not yet paid, and other liabilities for education. The income of the Orphan Fund was £6,320, and a balance of £4,003 is carried forward.



## Illustrations.

SELECTED FOR FINAL COMPETITION IN THE ROME SCHOLARSHIP COMPETITION IN ARCHITECTURE.  
 SUBJECT: A NATIONAL PANTHEON. Designs by WILLIAM J. H. GREGORY (Liverpool University), ERIC R. ARTHUR (Liverpool University), BERNARD GEORGE (Architectural Association), S. ROLAND PIERCE (Architectural Association), EDWARD W. ARMSTRONG (Architectural Association), and BERNARD A. MILLER (Liverpool University).

## Notes and Comments.

### The Death of Sir W. B. Richmond, R.A.

THE death of Sir W. B. Richmond brings back to our minds the long drawn out controversy about the decorations of St. Paul's. Sir William in spite of his deserved personal popularity fell very foul with members of the architectural profession, about whom he had many trenchant and witty things to say. He was imbued with the prevalent feeling of last century which accepted Wren's work as it was there, but was in reality in no ways enthusiastic about it. That this feeling was shared by those who should know better is evidenced by the pews which an eminent architect was responsible for in St. Stephen's, Wallbrook, and which replaced the high pannelled enclosures which afforded a base suitable to the proportions of the interior. Now the majority of artists would at least profess profound admiration for Wren's work, but their real understanding of its character can best be judged when they are called on, like Sir William, to carry out work framed by its lines.

### A Government Garden City.

A SUGGESTION has been made by those responsible for the Garden Cities and Town-Planning Association that a Government garden city outside London might possess possible advantages. Already a decentralisation of Government departments is taking place. Alexandra Palace accommodates many War Office officials. The Ministry of Labour have a large department at Kew in connection with national unemployment insurance. For many years past the work of the Savings Bank Department has been conducted at West Kensington. Routine clerical work in connection with war pensions is now performed at Acton. The Ministry of Health have regional offices both for housing and for insurance in London suburbs. The suggestion is that a Government garden city might be formed in which bureaucracy is the chief industry and the inhabitants all bureaucrats. The suggestion here made is a very interesting one, but we feel it has not been carried quite far enough. Such a garden city should be surrounded with modern fortifications, like those of the Hindenburg Line, which would render ingress and egress absolutely impossible. For it would be a cheap thing for the nation if at the cost of building the most magnificent of garden cities we could isolate the bureaucrats and pursue our avocations in peace without them.

### Edward Webster Cox of the "Builder."

WE regret to announce the death of Edward Webster Cox, of the "Builder," of which he was part-proprietor as well as Chairman. Mr. Cox in spite of his advanced years took an active part in the management of the paper and was seldom absent from the weekly Board meetings, which are one of the traditions of the paper. To him the "Builder" was always a primary interest and pre-occupation, and though he was on the Court of the Stationers' Company, of which body he had been Master, and was a Justice of the Peace, besides having many outside commercial interests, the "Builder" and its affairs may be said to have been never absent from his mind. He was careful, conscientious, and somewhat inclined to give undue prominence to trifles, and so hardly in sympathy with the broader outlook of present times, but he was most astonishingly alert and mentally vigorous up to the last and a man whose personality it was impossible to overlook; while those who came into contact with him often felt it was difficult to gauge the real attitude of his mind. During the progress of the War he was much concerned by the falling off of the paper's circulation, which he failed to see must be the inevitable result of years of uncertainty and struggle, and his faith in the mission of

the paper was such that he could hardly conceive it could not evoke much interest in a crisis of the world's history. His loss will be greatly regretted by a large circle of friends who admired him as a man of sterling character and rectitude, and it will be difficult for long to imagine the "Builder" under any other direction than his own.

### Central Heating at Dundee.

THE central heating scheme which has been adopted in connection with the development of Logie at Dundee is said to be likely to involve a loss, as while the running costs would be likely to be £5,000 the income derived would not exceed £125 a month. The scheme for heating houses at Stirling Park and Hospital Park is too far advanced to be abandoned, but in respect to Taybank it is suggested that the houses should be made independent as far as heating is concerned. Dundee under its very able City Engineer has undertaken much good and progressive work, and we are sorry to learn that the experiment in central heating there is not likely to turn out a success, as there cannot be much doubt that, had it been so, the example would have been widely followed to the benefit by all concerned.

### Angelica Kauffmann's Work.

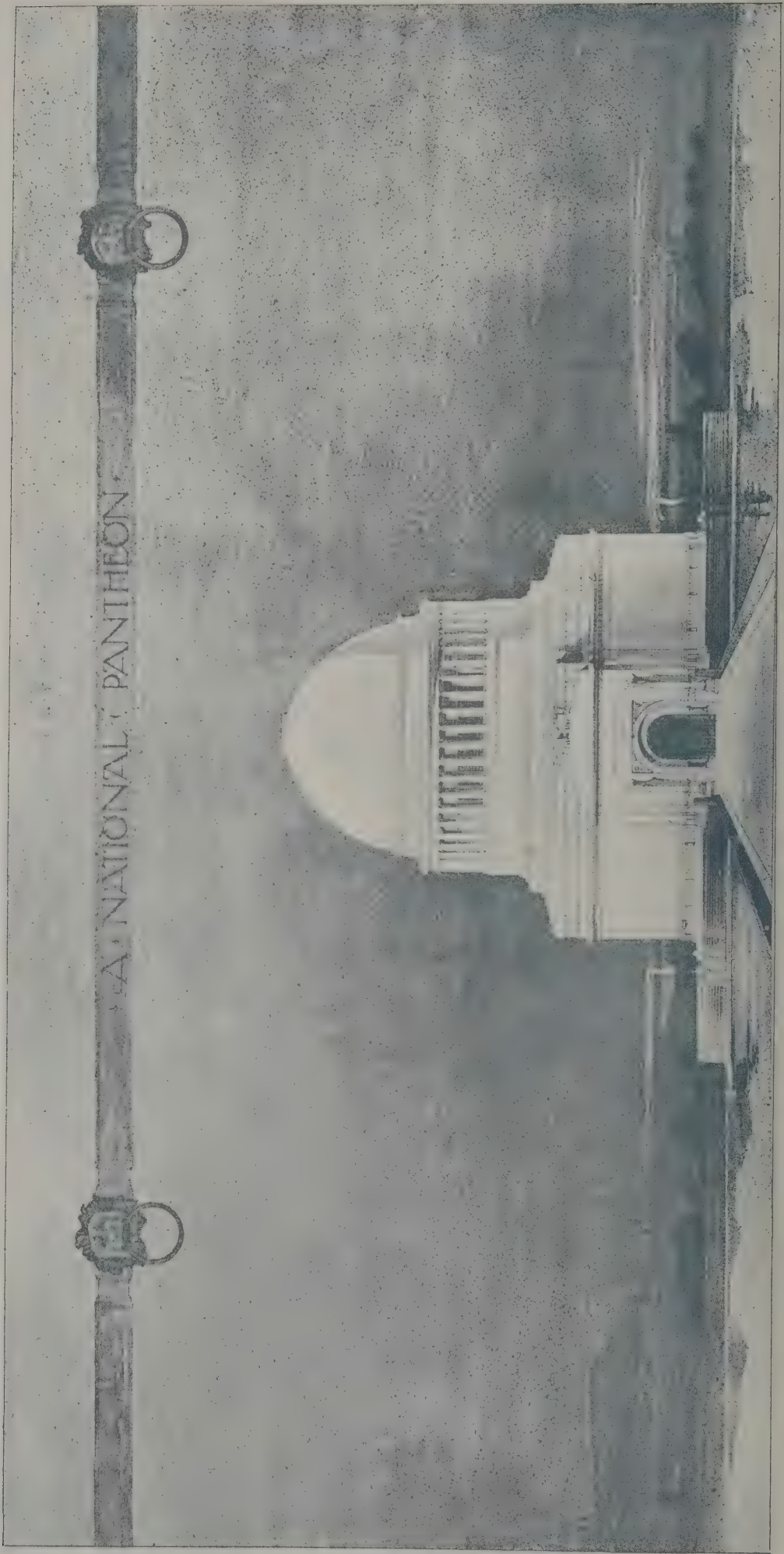
WE should like to draw the attention of our readers to the authoritative account of Angelica Kauffmann's work by Lady Victoria Manners which began in the January number of the "Connoisseur." No student of English painting can afford to neglect this opportunity of making acquaintance with the work of an artist all too little known, owing chiefly to the fact that her pictures are almost all in private hands; for, familiar as some of them are from the engravings of Bartolozzi and his school, only a study of the originals can show us how much finer and stronger is her art than is commonly supposed. Even the first paper reveals her as among the most interesting artists of the second rank which the century produced; and her portraits, far less known than her weaker subject pictures, have a grace and charm all their own.

### The Development of Woking.

MR. TARRANT, the well-known contractor, has formulated a scheme for the development of Woking; the execution of which will, he hopes, give employment to many ex-Service men, as well as proving of great value to the district. He proposes to develop about 235 acres of the commons round the district in such a way as to open out their beauties without interfering with the open spaces in front of the already existing houses, to remove some of the dense growth of trees which is blocking the healthy breezes and beautiful distant scenery, and at the same time to employ labour on roadmaking schemes that would ultimately be economically sound. The scheme embraces the laying out of a golf course of eighteen holes on the lines of the St. George's Club at Weybridge, sports and football grounds, recreation grounds and a children's playing field, villa residences, and cottages for badly disabled ex-Service men. The scheme was explained in detail to the Unemployment Aid Committee and has been generally enthusiastically received; the chief difficulties standing in the way are those relating to the acquisition of common land, which is rendered very difficult by the law as it stands and may require a special Act of Parliament, especially as the district of Horsell was incorporated with Woking in 1906 on the understanding that its common and other rights should not be infringed. Without knowing the local circumstances, we are glad to hear of great schemes like this for the improvement of districts being put forward as commercial rather than municipal ventures.



THE UNIVERSITY OF ILLINOIS  
LIBRARY



SCREENLESS PHOTO PROCESS SPRAGUE HAYCOCK (PRINTERS) 10 63 & 70 DEAN STREET LONDON W.1

SELECTED FOR FINAL COMPETITION IN THE ROME SCHOLARSHIP COMPETITION IN ARCHITECTURE.

SUBJECT: A NATIONAL PANTHEON.

DESIGN BY BERNARD GEORGE (ARCHITECTURAL ASSOCIATION)





SPRINGER, 135 PHOTO PROCESS, SPEAR, 1, PLATON, 10 N. TRELLIS, 69 & 70 DEAN STREET, LONDON, W.

SELECTED FOR FINAL COMPETITION IN THE ROME SCHOLARSHIP COMPETITION IN ARCHITECTURE.

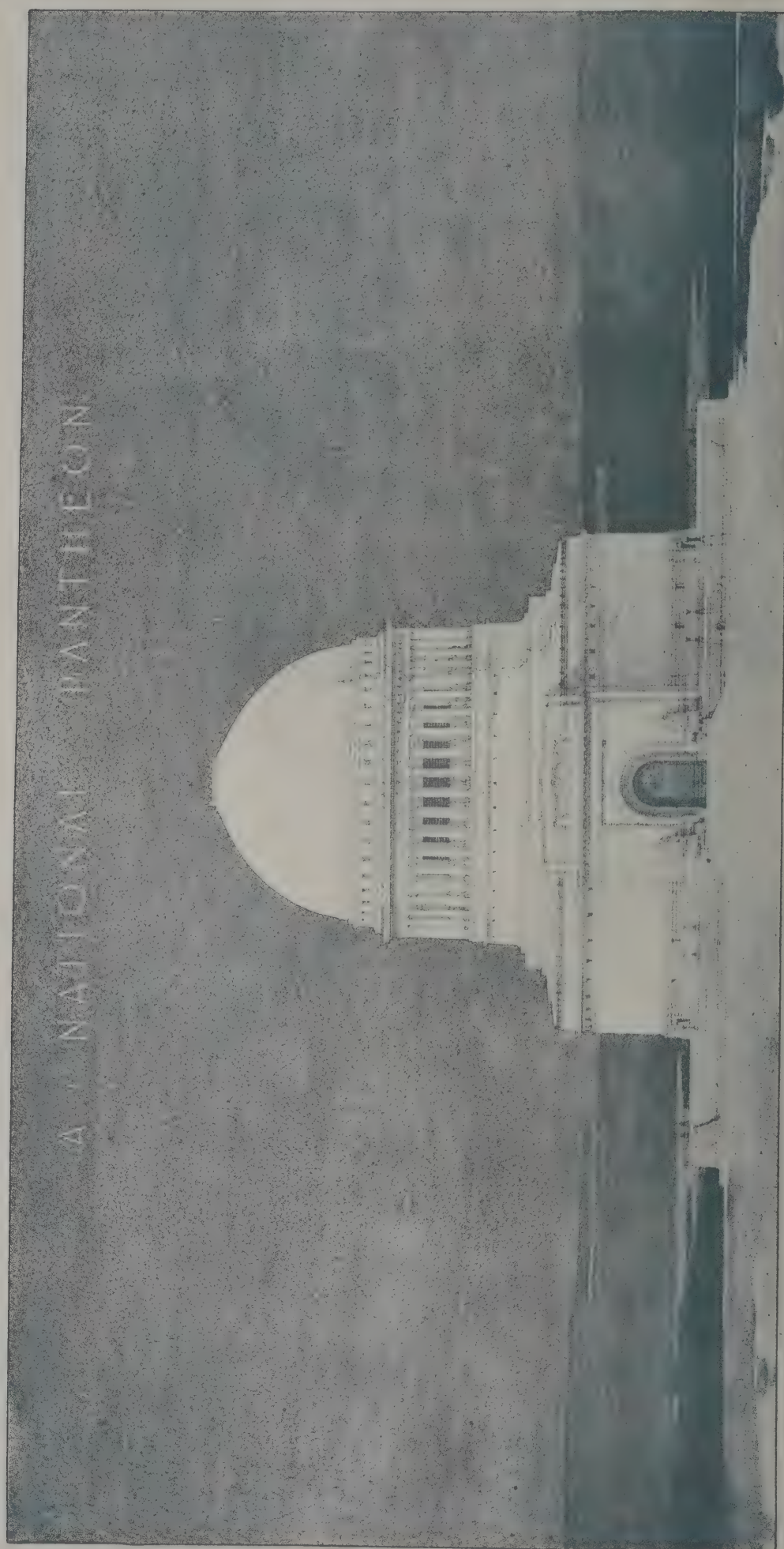
SUBJECT: A NATIONAL PANTHEON.

DESIGN BY S. ROLAND PIERCE (ARCHITECTURAL ASSOCIATION).





THE LIBRARY  
OF THE  
UNIVERSITY OF ALABAMA

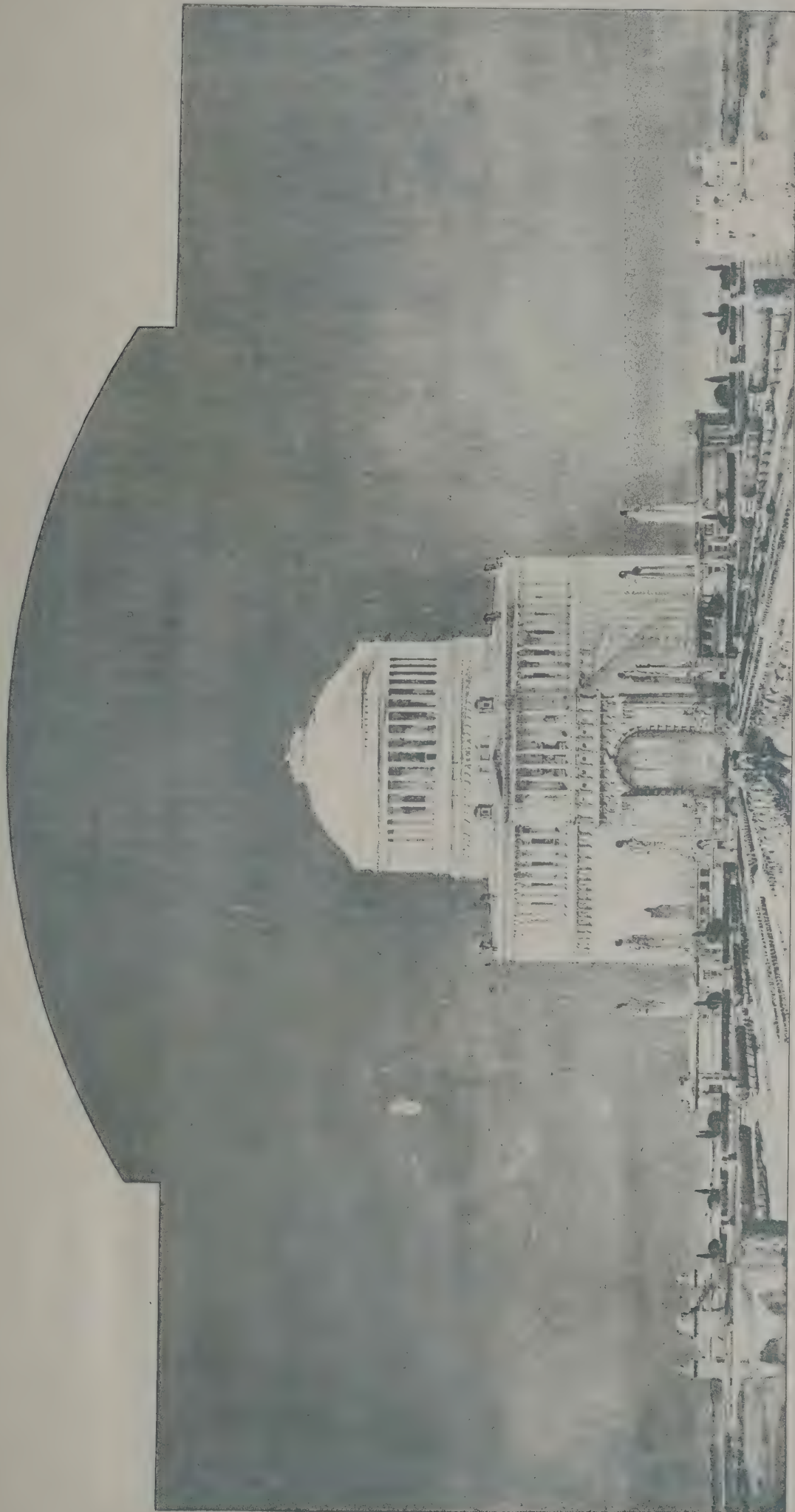


SCREENLESS PHOTO PROCESS SPRAGUE HAYCOCK (PRINTED) 17 1/2 69 & 70 DIAM. STEPHEN LORRICK IN 1

SELECTED FOR FINAL COMPETITION IN THE ROME SCHOLARSHIP COMPETITION IN ARCHITECTURE.  
SUBJECT: A NATIONAL PANTHEON.

DESIGN BY EDWARD W. ARMSTRONG (ARCHITECTURAL ASSOCIATION).





SCREENLESS PHOTO PROCESS, SPRAGUE HAYCOCK (PRINTERS) LTD. 69 & 70, DEAN STREET, LONDON, W.1.

SELECTED FOR FINAL COMPETITION IN THE ROME SCHOLARSHIP COMPETITION IN ARCHITECTURE

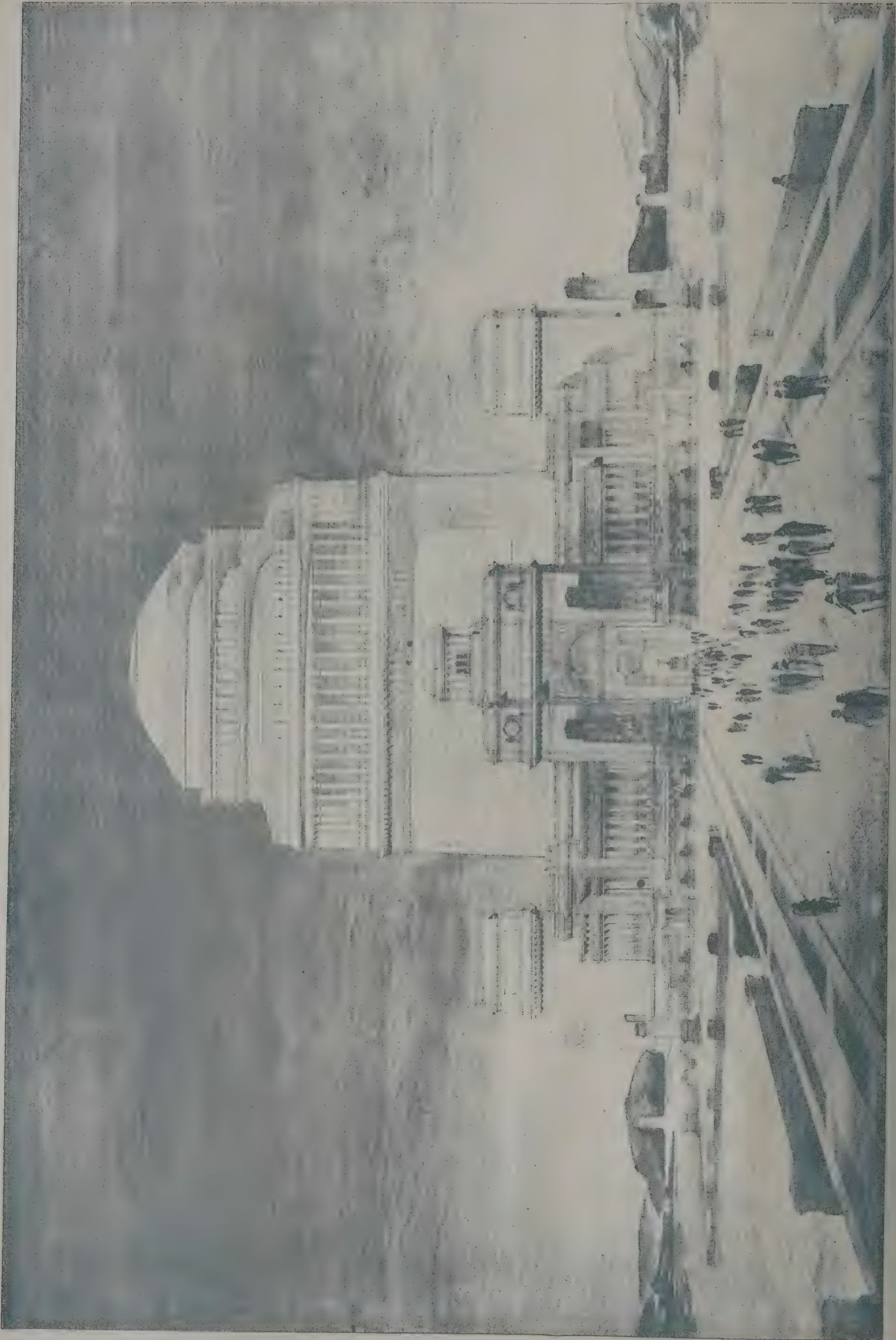
SUBJECT: A NATIONAL PANTHEON.

DESIGN BY BERNARD A. MILLER (LIVERPOOL UNIVERSITY).



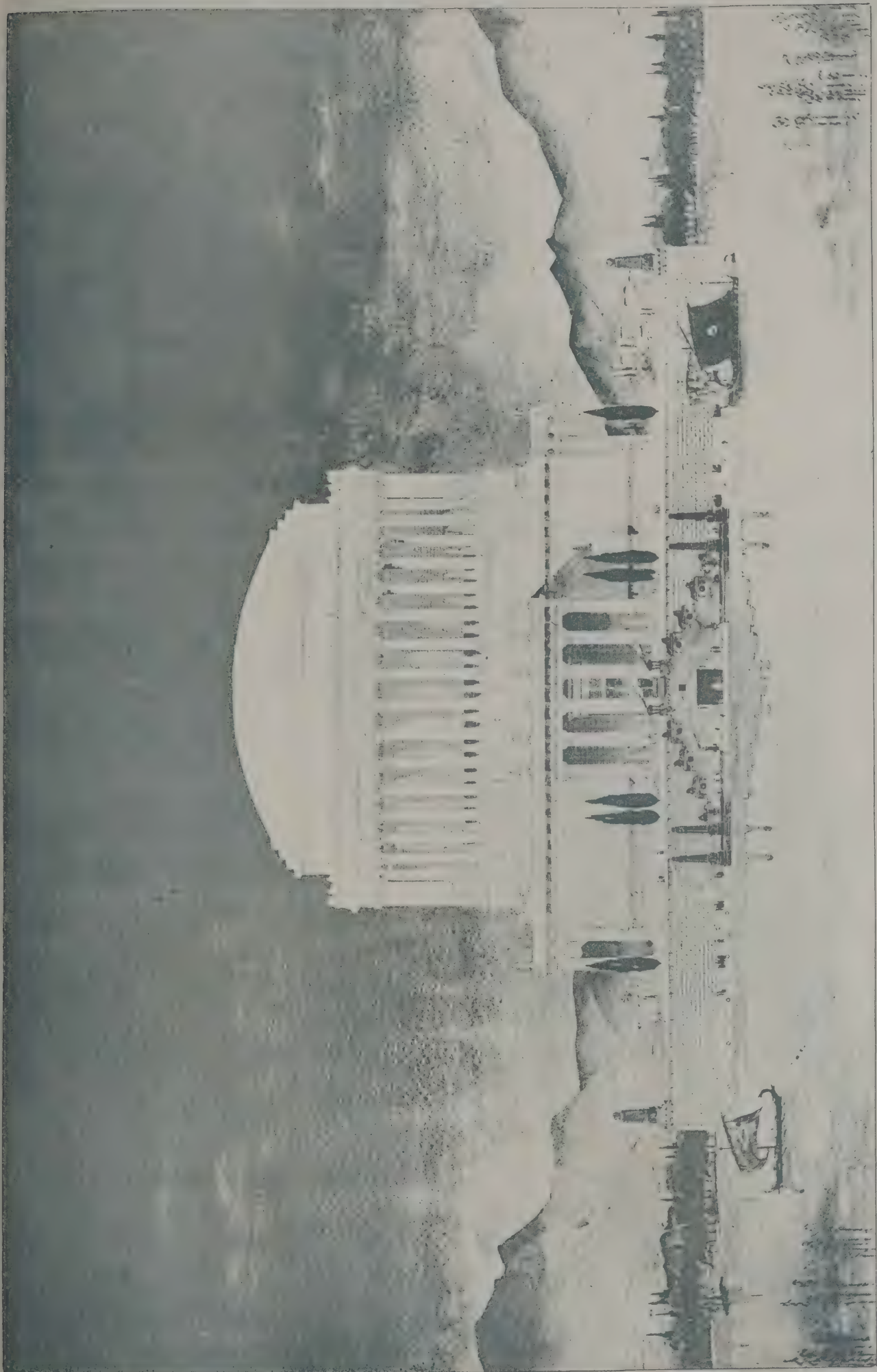


THE LIBRARY  
OF THE  
UNIVERSITY OF ILLINOIS



SELECTED FOR FINAL COMPETITION IN THE ROME SCHOLARSHIP COMPETITION IN ARCHITECTURE  
SUBJECT: A NATIONAL BANK BUILDING





ESPECIALLY PHOTO PROCESS SPRAGUE HAYCOCK (PRINTERS) LTD 69 & 70, CATH 21

SELECTED FOR FINAL COMPETITION IN THE ROME SCHOLARSHIP COMPETITION IN ARCHITECTURE

SUBJECT: A NATIONAL PANTHEON

DESIGN BY ERIC R. ARTHUR (LIVERPOOL UNIVERSITY)





## London Art Galleries.

(All Rights Reserved.)

LAST week was opened at the Royal Academy Galleries in Burlington House the exhibition of works submitted in the open examinations for the Rome scholarships connected with the British School at Rome, in architecture, sculpture, decorative painting and engraving, and for the Henry Jarvis Studentship in Architecture, with the works or the Final Competitions for the Rome Scholarships awarded in 1920. I propose in my notes this week to give some notice of the paintings and sculpture in this exhibition, which will remain open till February 19. Before doing so, however, I have to mention some exhibitions in the London Galleries which were unavoidably held over last week, which was a very busy one for the smaller galleries.

Among these were the works by Gustavo de Maestu and the paintings in tempera and gouache at Walker's Galleries, the work of some independent painters and sculptors at the Independent Gallery in Grafton Street, the etchings and engravings exhibited in Pall Mall East by Fellows and Associates of the Royal Society of Painter-Etchers and Engravers—which I only mentioned incidentally—the work of the Pencil Society—an exhibition of drawings from February 11 to 23 at the Brook Street Art Gallery—and, at the Burlington Gallery, paintings of Southern Spain by Jan Gordon and Cora Gordon.

Mr. Jan Gordon, whom I seem to know better as a writer than an artist, tells us in his preface to the catalogue that these sketches and paintings of Spain are first impressions of a fascinating land; and warns us against the romantic impression of that land. "In the mind of the average Englishman Spain is the romantic country of Europe. He has firmly fixed in his mind the invasions of the Moors, the Spanish Armada, the conquests of Mexico and Peru, Drake, the Inquisition, the Peninsular War." Still, Mr. Gordon is kind enough to admit that "Spain retains still a flavour of her romantic past," in which, knowing that country fairly well, I entirely agree: but adds that in these studies he has concentrated on those elements which appeared most instinctively Spanish. He really does get the blazing sunlight and the arid character of landscape in such oil-studies as "Algazares," "Mountain Tillage," "Heat," and "Jijona, the Mule Team," and "In the old town, Jijona"—this last, however, being by Cora Gordon. Spain is, in fact, infinite in her artistic possibilities, and some of them find appreciative record here.

The thirty-ninth annual exhibition of the Royal Society of Painter-Etchers and Engravers, to which I alluded last week, contains some attractive work; I have mentioned already the etchings of Spanish architecture by H. J. Molin, the best of these being his fine "Porch of Coronation in Burgos Cathedral," though in an Italian subject, the "Villa d'Este," with its avenue of cypresses and gushing fountains, he is almost as good. His third subject here, "In Spain during Semana Santa," gives the interior of such a cathedral as that of Seville, with its sense of space and shadowy mystery. This Swedish artist is a brilliant etcher: his architectural drawing is sound, though here and there we find a trace of indecision in the line. Some work of considerable charm by young members, which may be grouped together, is Anna Barry's "Goldfinches fighting," Katherine Cameron's "Honeysuckle," and Winifred Austen's "Surrey Fowl"—a magnificent cockerel—and the same artist's delightful "Little Owls," in dry point. Lee Hankey in "La Léchante," treats his favourite theme of mother and child with success; and in aquatint there are two studies of great charm, "A cloudy afternoon, Lake Garda," by Percival Gaskell, and Sydney Long's "Moonrise," conceived with real poetry of feeling. The powerfully treated "Storm" by Alfred Hartley I take to be a mezzotint: in dry point Leonard Squirrell's "Derbyshire Hills," with its sense of distant perspective, is excellent.

The work of the British School at Rome, to which I have alluded as now on view at Burlington House,

quite apart from the architectural studies for a national Pantheon, I found to show some interesting, though, of course, very varying, work in painting, sculpture, and engraving. I was particularly impressed by the work in painting of Henry Ball—notably his fine decoration for the board-room of a Navigation Company—but I shall not say any more of these studies here, as I hope to give them a special notice next week.

The eleventh exhibition of the Modern Society of Portrait Painters opened last week in the Royal Institute Galleries in Piccadilly. On the whole this may be described as a very successful show of portrait work, rivaling that of the Grafton Gallery. Mr. Glyn Philpot's colossal portrait of the Marquess of Londonderry, at full length, standing in his robes of the Garter, is more assertive than really impressive; and I prefer Bishop Charles Gore, standing against a "couleur de rose" background. Mr. de Glehn is excellent this year in his "Roger Quilter, Esq.," and his "Miss Frank"; and Gerald Kelly no less so in his excellent likeness of Sir Hugh Lane, whom I remember best before he wore a beard; while an unassertive but admirable portrait is "James Glass," by Fiddes Watt. Near this W. B. E. Ranken's "Mrs. Wilfrid Isaac," in a blue dress, seated upon a blue-upholstered chair, seems to challenge attention. Decidedly unconventional, but clever withal, is G. W. Lambert's self-portrait with his pipe and glass, and in the uniform of the Australian Light Horse, reduced on this occasion to a vest and breeches; while Oswald Birley has also a self-portrait and a portrait of Gerald Kelly, besides his charming figure of Mrs. Barron. This artist appears also in the second room in "The Fur Cap," beside Gerald Kelly's "Miss Doris Dommette" and de Glehn's "Anthony Bernard, Esq." Scattered through the rooms are busts of the Russian, Soviet leaders, made by Mrs. Clare Sheridan in Moscow in 1920. It has been questioned whether this particular display should have been permitted, and it was certainly in questionable taste for the Society to place them in the front of its catalogue. At the same time, it is fair to state that these portrait busts possess character and force, rather than subtlety of observation or modelling. We see in Lenin the cold visionary, the Robespierre of his land, in Trotzky's saturnine head the voluptuous cruelty as of some Roman ruler of the later Empire; yet as we look we cannot forget that this man, and probably every one of those here portrayed, stands, as I said last week, branded before the tribunal of history with innocent blood—though, perhaps, as has been well remarked, "these things count for little when the thirst for notoriety is on the other side."

At Walker's Galleries there is an exhibition of the paintings and pastels of Gustavo de Maestu. This artist is now, I believe, settled amongst us, though his work is still thoroughly Spanish in character, and, to my judgment, showing great advance in his figure drawing and colour to those shown in the Grafton Galleries. Her Majesty the Queen visited these Galleries last week and inspected the Bulwer Collection, which I have mentioned in these columns.

The reopening of the Grosvenor Galleries on February 11 was a crowded function. I am reluctantly compelled, through lack of space, to defer my notice of this exhibition till next week.

S. B.

## Art News of To-day.

THE Martin Currie Collection of miniatures and bijouterie at Messrs. Christie's was of interest in last week's sales. It contained work by Hilliard, Engleheart, and Boucher's figures of children upon an oblong gold box.

The King of Spain has conferred on Sir Alfred Temple the Commandership of the Order of Isabel the Catholic for services rendered in the interests of Spanish Art.

Recently elected Fellows of the Royal Society of Painter-Etchers and Engravers are Mr. Edmund Blampied, Mr. Fred Richards, and Mr. Gerald L. Brockhurst.



## The Royal Institute of British Architects.

An ordinary general meeting of the Royal Institute of British Architects was held on Monday last at Conduit Street, W., Mr. E. Guy Dawber, F.R.I.B.A., Vice-President, in the chair.

Mr. Arthur Keen, Hon. Secretary, announced with deep regret the death of a very old friend of the Institute, Sir William Blake Richmond, K.C.B., R.A. He had been an Honorary Associate of the Institute since 1894, and for some years took an active part in the work of the Institute as a member of the Art Standing Committee. He contributed to their proceedings by the reading of papers on "The Collaboration of Architect, Painter, and Sculptor" and on "Decorative Painting." He was one of the leaders in the movement for the Abatement of Coal Smoke in our Cities and Towns, and read a paper on the subject before the Institute in 1902. Of his work as an artist there could be no need to speak. His beautiful portraits and his fine mosaic-work at St. Paul's are familiar to all. Mr. Keen moved that there be entered on the minutes of the meeting an expression of the Institute's deepest regret for his loss, and that a message of members' sincerest sympathy and condolence be communicated to Lady Richmond and family. The proposition was carried by the members standing in silence.

Mr. Arthur Keen also announced the death of Mr. Edward Webster Cox, who had been associated with "The Builder" for some sixty-six years. An expression of the Institute's sympathy is to be communicated to the proprietary of that journal.

Mr. W. E. Willink, M.A. (Cantab.), F.R.I.B.A., then read an illustrated paper on

### "The Cunard Building."

The invitation to read that paper seemed, said Mr. Willink, to indicate on the part of men well qualified to express an opinion a certain approval of the Cunard Building. But in the first place he wished to be clearly understood that it has no claim whatever to be considered as a work of imagination; it is simply an office building, large indeed in dimensions, and the home of many firms of world-wide interests, but merely an office building, in which economy, practical utility, comfort, and convenience could never be disregarded. These qualities he claimed it does possess, and, as a humble tenant, he ought to know. If it is found to possess others less easy to check or to demonstrate it would be a source of profound gratification to him.

The honour of presenting that paper should have fallen on his late partner, Philip Thicknesse, who, to the deep grief and immeasurable loss of all who knew him in any capacity, died in the early spring of last year. Unlike some partners, who carry on two or more practices under the one roof, or others who strictly define the department of the work for which each is responsible, he and Mr. Thicknesse always, during the thirty-five years of their partnership, endeavoured to be jointly responsible for all that passed through the office, and though in such conditions it is impossible to say which partner is responsible for any particular bit of design or business, it is a fact that to Mr. Thicknesse is to be attributed by far the greater part of such credit as belongs to the structure.

Then, again, there was the valued advice and assistance of Messrs. Mewes and Davis, who, in the person of Mr. Arthur Davis, were appointed by the Cunard Company to act as advisory architects. It was, indeed, due to Mr. Davis that the Italian Renaissance was adopted as the guiding style of the exterior, and his excellent judgment and power of design were of constant service both at the outset of operations and, as occasion arose, during the progress of the work.

To the robust and vigorous handling of Mr. J. Watson Cabré most of the detailing was committed until in 1916 he went off to the War.

The site was an interesting one. A map of 1725 shows the graveyard of St. Nicholas' Church as running down to the water position of Cunard Building. Some

half century later it was occupied by George's Dock, which continued till 1900, when it was purchased by the Corporation, who reclaimed it, developed it by continuing across two streets which butted on to it—Water Street and Brunswick Street.

Thus the site was divided into three portions, each appropriate for the erection of an important building. Now here was a chance such as is seldom offered to a great city. The landing-stage, almost opposite the three sites, is the place where vast numbers of travellers from all countries, notably the United States, first find themselves on the soil of Europe, and how could there have been a finer opportunity for the worthy welcoming of our guests?

The Dock Board made the first step, and erected a very fine building for their offices, but one, unfortunately, too low for modern requirements and possibilities. The Corporation sold the other end site to the Royal Liver Insurance Company, with the condition that any building put upon it must resemble the Dock Board Offices in height, material, and design. How this condition was evaded it is not necessary to explain, but evaded it was, and to the lasting detriment of the city. Extreme difficulty was presented by the existence of these two buildings to anyone who had to design a third to stand between them. The only possible thing to do was to put up a building of a design in all respects different from both, and this is what was done.

The plot originally was quite irregular in shape, none of the four sides having any relation with any other, the Brunswick Street side being considerably longer than that in Water Street. A sympathetic Corporation gave permission to swing the building lines at the two ends round on their centres so as to make a right-angle with the axis of the building; and thus there was obtained the present symmetrical plan, convenient for all purposes. This was really a very great advantage, one experienced by very few designers of city buildings, who usually must perforce conform with building lines, however awkward they may be. Furthermore, the site was an island one, with no restrictions as to ancient lights and with wide spaces all round it.

All the foundation piers were taken down through the boulder clay to the new red sandstone. At the east end this only involved some 2 feet 6 inches of excavation, but as the rock slopes down towards the river the depth of the excavation for the piers at the river end was about 20 feet, so that at that end work began at a depth of some 50 feet below pavement level. From the rock up to the basement mezzanine the piers were built in mass concrete; at that level the reinforced concrete began. The exteriors were covered in Portland stone.

The general flooring of the building is based upon a method first introduced and much used by the Trussed Concrete Steel Company. From main beam to main beam, in this case spans of 16 feet or so, are carried small reinforced concrete beams spaced 2 feet centres. Between these small beams are placed in position corrugated iron formes, the top of which come to 2 inches below what will be the top of the beams. The whole is then filled in with fine concrete all slightly reinforced. The top of this concrete is some 1½ inches below the finished floor-level, the difference being made up with cement rendering brought to a fine surface. Then come cork slabs, and finally linoleum. The slabs serve two purposes, for they help to give the linoleum floor resilience and warmth, and at the same time provide a convenient and easy way of leading wires for light, telephones, bells, and the like from the walls to interior positions. Through the small beams steel tubes are concreted in for the purpose of conducting electric-light wires without disturbance of the plaster ceiling, and on the sole of the small beams are boards of equal width, fixed by means of hoop-iron placed in position before concreting, and these serve for the reception of fibrous ceiling slabs. The corrugated iron formes were so arranged that after the removal of the sheeting on which they stood they could be detached



and used again, and most of them were so re-used three or four times. This floor has been found to be very successful, and has stood all tests, up to the moving of heavy safes—which, of course, in their permanent positions always stand on beams.

As to the cornice, it is evident that the style adopted demanded a very heavy cornice; as a matter of fact, the cornice actually projects nearly 7 feet from the wall face. The construction of such a cornice was at first a puzzling problem, for it was naturally wished to have it all of stone. If constructed in the usual way unobtainably big stones would have been needed, especially at the corners of the building, so a system of reinforced concrete cantilevers was devised, anchored back to the main beams and projecting enough to render possible the use of stones of any ordinary size.

The planning of the building is very simple. An important doorway in the centre of each side gives access to a main corridor dividing the block into two halves equal and similar in all but width. On each side of this corridor on all floors above the ground is accommodation of one bay, 16 feet in width, practically all given up to a good staircase, lifts, and lavatories, &c., for principals and staff, men and women. On the four lowest floors, including the ground floor, the whole of the space covered by the building is utilised, but on all the floors above the ground floor each half of the building has in the middle of it an open area, about 60 feet by 50 feet, lined with white tiles, giving excellent light to the offices—about 55 feet wide between the areas and the streets.

The ground floor is some 8 feet above the pavement, so as to allow for good windows to the lower ground-floor rooms, some of which are of considerable importance. The ground floor is 23 feet floor to floor, all floors above it 14 feet, except the second floor, which is 16 feet. The height of the corona is 110 feet above the pavement, and the screen wall about 10 feet more. The total length of the building is 330 feet, the breadth at the pier-head end 170 feet, and at the city end 200 feet.

The whole building is heated by radiators with forced circulation of low-pressure hot water; but in private offices, and indeed wherever it is considered necessary, ordinary fireplaces can be added. The smoke from these passes through steel tubes up, level, or down, as circumstances demand, to fans driven by electricity, which expel it. There is therefore only one chimney stack—that for the boiler fires. The system works admirably.

All the general contractor's work was carried out by Messrs. Cubitt & Co. without contract, on the principle so common in shipbuilding, and almost universal during the war, of cost plus profit. And though this method has worked shockingly badly in many cases, in this instance it was the wisest that could have been adopted. It all depends upon the honourable character of the contractors. In the calculation the Cunard Company were taken as tenants, and their fitting up was not taken into account. But including all the landlord's work, the building, the heating, drainage, lavatories, lighting, lifts, &c., and not omitting the marble decoration of the main cross-corridor, the cost of the whole works out to 1s. 2d. per cubic foot. This price seems absurd now, and, seeing that almost the whole was carried out during the war, it is undoubtedly rather remarkable, and a justification of the methods adopted.

#### DISCUSSION.

Professor S. D. Adshead, M.A., in proposing the vote of thanks described the paper as a very interesting and exceptional one. He remembered the great anxiety of the Liverpool Corporation twenty years ago at the prospect of having to put up a building on this site. He himself had prepared a perspective for one which, happily, was not erected. He regarded the Cunard Building as one of the finest structures erected in this country for a considerable number of years. Certainly it was the finest office building. The beautiful views of the interior shown on the screen had very strongly increased the impression the exterior had made on him when he saw it some time ago. The structure had been the subject of great engineering problems very cleverly

managed. In addition it was an extraordinarily beautiful building.

Mr. Desch (Director of the Cunard Company) said he had been associated with the Cunard Building from beginning to end, and that nothing had left pleasanter memories. Those present that night must admit it to be a work of art.

Mr. A. W. S. Cross (vice-president) congratulated Mr. Willink on a very successful work and one which marked an architectural epoch. The audience had admired the external architecture, the planning and the general arrangement, and all had been staggered by the cost. Such a figure as 1s. 2d. per cubic foot was beyond their dreams. Apart from the paper under discussion he was particularly glad to see Mr. Willink there that evening as coming from the Provinces, and therefore being one of those who ought to take a larger part in the work of the Institute than they do at present.

Mr. George Hubbard, F.S.A., thought the views were some of the best they had seen on the screen and that the building was one of the finest put up in the memory of many of them. It would stand out in years to come. He would also congratulate Mr. Willink on his very excellent delivery of the paper, which had added considerably to its enjoyment.

A speaker interjected the remark that he had received that morning tenders for the erection of reinforced concrete factory in London which worked out at 2s. 10d. per cubic foot.

Mr. H. M. Fletcher, speaking as one who had seen both the inside and outside of the Cunard Building, said it was one to which less justice was done by photographs than any he knew. The effect was really amazing. Its effect of solidity was quite lost by the illustrations. The interior was welded together in a harmonious whole.

Mr. E. Guy Dawber before putting the vote of thanks to the meeting expressed his congratulations to Messrs. Willink and Thicknesse on having the opportunity of producing such a wonderful building. It fell to the lot of few architects to design a building on an island site unrestricted by any trammels of light and air, and on one of the finest sites in the world. That opportunity had been seized, and a building had been produced of which they would be proud for all time. He was struck by the simplicity of the planning: the two cross corridors were very ingenious and gave a most effective arrangement of offices.

The vote of thanks was then carried with acclamation.

The Hon. Secretary announced that the special general meeting for the election of the Royal Gold Medalists for the current year will be held on Monday, February 28. The Meeting will be followed by a business meeting for the election of members; for the discussion of conditions for housing competitions proposed to be introduced into the Regulations for Architectural Competitions; also to discuss proposals for the amendment of the by-laws respecting the classes of honorary associates and retired fellows, and for the creation of a new non-professional class to be designated as "Subscribers."

Mr. Arthur Keen also gave notice of the following extra meetings:—

On Tuesday, March 1, at 8 o'clock a Paper by Mr. Jay Hambidge entitled "Further Evidence for Dynamic Symmetry in Ancient Architecture." This meeting has been arranged jointly with the Society for the Promotion of Hellenic Studies.

On Wednesday, March 2, at 8 o'clock Mr. Edward Warren will read a Paper entitled "Architectural Impression of a recent tour in Mesopotamia." The Paper will be illustrated by lantern slides and by a remarkably interesting series of water-colour drawings by Mr. Lionel Muirhead, who lived a long time in Mesopotamia under the old Turkish regime.

At the monthly meeting of Stanley Urban District Council the Public Works Loan Board were reported to have written sanctioning the Council's application for a loan of £156,600 for their building schemes, to be advanced by instalments as required.



## Industrial Council for the Building Industry.

THE quarterly meeting of the Building Trades Parliament was held on Thursday and Friday of last week at Montagu House, Whitehall. Mr. J. Storrs, J.P. (Chairman), presided, and there was a large attendance.

### THE GOVERNMENT AND ADULT APPRENTICESHIP.

A lengthy report was submitted by the Resettlement Committee relative to the position of the adult apprenticeship scheme, which was propounded by the Committee to meet the urgent demands of the Government for labour under the housing schemes, and which was adopted by the Council at its meeting last August. After recapitulating the negotiations which had taken place between the Committee and the Housing Committee of the Cabinet on the question, the report thus concluded: "We wish to point out that the reception of the scheme was immediately prejudiced by the action of the Cabinet in putting forward proposals for the dilution of the industry by ex-Service men under special conditions and in addition to the number already to be provided for by adult apprenticeship. These negotiations were not conducted with the Resettlement Committee, and in our opinion the results would lead to an anomalous position on such schemes where they might be carried out. Under the adult apprenticeship scheme provision is made for the payment of scales of wages which would compare unfavourably with those offered to Government dilutees, for whom an exceedingly short period of training is contemplated. Further, the Committee understood when the adult apprenticeship scheme was accepted by the Ministry of Health that although the Government did not consider that it would adequately meet the situation, nevertheless they were prepared to give it a trial. The Committee now finds itself in an invidious position. Its advice regarding the augmentation of building-trade labour is not being accepted; the scheme for adult apprenticeship has been rejected by an overwhelming majority of the members of the unions; and there seems every probability that the scheme for the dilution of the industry by 50,000 ex-Service men will also not be accepted. We therefore would suggest that the Industrial Council should take into consideration the present position and determine what further steps shall be taken in the interests of the industry, especially in view of the present position revealed by the statistics published by the Registrar-General and of the separate negotiations, which have led, in our opinion, to the present difficult situation."

Mr. R. Wilson (Chairman of the Committee) proposed the adoption of the report, and said he thought they had reason to complain of the way in which the Government had ignored the advice which they had tendered them. Had the scheme been accepted, he believed that many of the housing difficulties which now confronted the country would have disappeared.

Mr. H. Graham (Vice-Chairman) seconded the motion.

Mr. T. Foster (Burnley), in supporting the resolution, strongly criticised the Cabinet for having gone over the heads of accredited representatives of the building industry, and for endeavouring to make bargains with the operatives alone.

Mr. Macpherson (Glasgow) expressed the hope that if the Government approached the employers separately, they would refuse to negotiate, and refer them to the Industrial Council, which was the one body to speak for the industry as a whole.

Mr. W. Moffatt (Birmingham) remarked that as a member of the Resettlement Committee its work had been a great disappointment to him. Practically everything that the Committee had proposed had been turned down, and it had not been able to do anything whatever of a positive nature. However, in view of the possibilities of developments arising in the near future in connection with housing, he thought it would be as well to keep the Committee in being until the annual meeting.

The report was then adopted.

### THE MANAGEMENT AND COSTS COMMITTEE.

An important report was submitted by Mr. T. Foster (Burnley), Chairman of the Management and Costs Committee. This stated that at a meeting of the Committee on December 6 it was decided not to proceed with the report already submitted, but to endeavour to deal with various separate matters, and report upon:—(1) A scheme of unemployment pay; (2) a scheme of accountancy and costing; (3) a system of superannuation; and (4) regularisation of demand for labour. The consideration of the first of those matters had formed the main work of the Committee, and the following resolutions had been passed as a basis upon which the final report might be based:—(1) "The Committee will first consider the provision of a supplementary scheme under the Unemployment Act, 1920, to cover unemployment as therein defined, which it is understood excludes intermittent unemployment through stress of weather, sickness, or accident." (2) "It is suggested that the Committee should base its proposals upon the provision of a benefit of 30s. per week per man as unemployment pay, in addition to the 15s. State benefit, this sum to be found by means of a supplementary scheme under the Unemployment Insurance Act, 1920." (3) "That for this purpose a contributory scheme should be drawn up, the funds to be found by joint contributions from employers and operatives." (4) "That contributions to the funds shall be in equal moieties." (5) "That the scheme should be established subject to a review at the end of three years; and subsequently at the end of each triennial period, the review to take into consideration the amount of cost of the benefit in relation to the circumstances then prevailing." (6) "That the formation of a scheme to provide benefit for parts of a day lost through inclement weather be the subject of statistical inquiry." At present, continued the report, the Committee was not in a position, owing to the absence of reliable data, to make definite recommendations pending such an investigation. At the outset they were faced with the necessity of formulating a definite proposal in order that the Unemployment Department of the Ministry of Labour should be enabled to make the necessary calculations regarding the cost of the scheme, but the Committee was not yet committed to any definite point of view. To obtain reliable information regarding the amount of wet time lost, it had been found necessary to draft a form for the case of such employers as might be prepared to keep a record of jobs just starting, or about to start, and to furnish weekly reports to the Committee. Volunteers for that purpose, working under as diverse conditions as possible, were desired. It was hoped that if the record was taken over a sufficiently wide area valuable information might be obtained, which was not at present in the possession of either section of the industry or of public authorities. The following information had been given the Committee by the Ministry of Labour:—(a) That the cost of providing for a benefit of 30s. per week, in addition to the State benefit of 15s. a week, would be 1s. per week from both employers and operatives. (b) The probable cost of abolishing the first three waiting days under the Act would be to increase the contribution by about 20 per cent., so that the total contribution to cover unemployment pay, together with the payment for complete days of wet time (which may be included in the three waiting days) and for the State benefit, would be approximately 1s. 7d. from both employers and operatives. Commenting on the report Mr. Foster said he believed it was in the spirit of the resolution which was passed at the last meeting of the Council. He appealed to the employers' federations to assist in giving the data which was asked for at the earliest possible date, as the Committee hoped to bring up a final report on the various matters they were considering at the next meeting in May.

Mr. W. H. Nicholls (Gloucester) and Mr. A. J. Forsdike (President of the National Federation of Employers) congratulated the Committee upon its reformed



plan of action, the latter suggesting that, in addition to the information already proposed, the Committee should ask for data regarding loss of time through absenteeism. The report was accepted.

#### TECHNICAL EDUCATION FOR APPRENTICES.

Mr. D. T. John (Secretary to the Education Committee), in a brief report of the activities of that body since the last meeting, stated that the scheme for giving technical training to apprentices was being very well received in the various centres throughout the country.

Mr. S. Smethurst (Oldham) remarked that the scheme for providing technical education for apprentices was the biggest thing which the Industrial Council had yet done, and it was calculated to be of enormous benefit to the industry. He appealed to employers and operatives to give the scheme their whole-hearted support.

The report was accepted, and the Committee was empowered to print an additional 10,000 copies of the scheme.

#### ADDRESS BY THE PRESIDENT OF THE BOARD OF EDUCATION.

Mr. A. L. Fisher, M.P., President of the Board of Education, who attended at the invitation of the Council, in the course of an interesting address said he regarded the scheme of the Education Committee as an important landmark in our educational history, as it was the first comprehensive attempt to present a plan for the education of apprentices in a great industry which had been produced by those associated with the industry. While not committing himself to every detail of the scheme, having read it carefully, he considered it a very valuable one, and he heartily congratulated the building industry upon its production. He was particularly glad that the Committee realised the value of junior technical schools by recommending that two years spent in such a school should be taken as two years of apprenticeship. He appealed to employers to give a preference to boys who had passed through those schools, and he emphasised the importance of the trade keeping closely in touch with the education which was given, in order to see that it did not fall behind the requirements of the industry. He also noted with pleasure that the scheme laid stress upon the proper employment of apprentices in their leisure hours, and he congratulated the Committee upon the provision they had made in the indenture to secure that apprentices should receive the education which it was intended they should receive. He noticed that the Education Committee criticised the elementary schools somewhat adversely, but to his mind the real defect in our educational system was not so much the teaching which was given in the elementary schools as the very defective provision made for continuing the education of children after they had left the elementary school. That was really the great gap in our educational system. It was that gap which the Government was hoping to fill as the provisions of the Education Act of 1918 were brought into operation; and it was the gap which the building industry proposed to fill by their scheme of apprenticeship, coupled with technical instruction. The building trade was one of the most important industries in the kingdom, and those engaged in it were acting wisely in taking elaborate precautions to provide the best technical education which was available for the young entrants into the trade. They were living in an age of very keen competition, and just as a good system of education which kept up to date was one of the most powerful auxiliaries to national prosperity, so an obsolete system was an obstruction rather than a help. He therefore appealed to employers and employed alike to throw the whole weight of their interest behind that technical education which lay at the basis of the advancement of their trade.

The Chairman remarked that it was very gratifying to have heard one Cabinet Minister speak in very good terms of the building community as a whole. (Laughter.) The regret which he (Mr. Storrs) felt was, he was sure, shared by all present—that the members of the Cabinet had not thought fit to take the advice which had been

offered them on many occasions by the trade as a whole, but had turned them down without the slightest consideration.

Mr. S. Smethurst, as Chairman of the Education Committee, proposed a vote of thanks to Mr. Fisher for his address, and remarked that he felt sure that the words of the right hon. gentleman would help very considerably the movement which so many of them had at heart.

The vote was seconded by Mr. Ottley, Vice-Chairman of the Committee, and supported by Mr. Cautrill, the Hon. Secretary, and carried with enthusiasm.

#### SCOTTISH EMPLOYERS AND THE COUNCIL.

Mr. F. Wall, the Acting Secretary, reported the receipt of a letter from the Scottish National Building Trades Federation dated December 29, 1920, stating that the Federation had decided to sever its connection with the Industrial Council.

Mr. Macdonald (Edinburgh) stated that one of the chief reasons why his Federation had decided to leave the Council was that it cost them £400 a year to send delegates to the meetings, and they failed to see what benefit the trade in Scotland was obtaining from that expenditure. The demobilised-apprentice scheme was rushed through without any consideration of the Scottish point of view, and although they asked for a separate scheme, it was refused. Discord had been set up in the whole industry between one trade and another and between operatives and employers, and strikes and serious dislocation of work resulted, the effects of which still remained. Another illustration of how little regard the Council paid to Scottish conditions was seen in the report of the Committee on Scaffolding Regulations, which was set up at the request of the Home Office. That Committee had drawn up a report containing between forty and fifty regulations which it was proposed to make applicable to Scotland as well as to England, notwithstanding the completely different system of scaffolding which prevailed in Scotland. The opinion of his members was that more men's lives would be put in danger in erecting the elaborate scaffolding proposed than ever it was proposed to protect. In many cases, too, the cost of the scaffolding would far exceed the cost of the repairs. The last straw, however, was the report of the Management and Costs Committee, and when the Scottish members went back from the meetings of the Council and reported that committees were sitting and spending much time and money in preparing death warrants for their members, and that the operatives were frankly telling them that their avowed object was to eliminate the employer, could they wonder that they were told that the farce must cease? The Government had flouted the advice of the Council, and, looking at the matter all round, the employers in Scotland had come to the conclusion that they could no longer see their way to throw away hundreds of pounds yearly, as well as much valuable time, on its work.

The Chairman remarked that he would be very sorry to see Scotland withdraw from the Council, and he hoped they would consent to reconsider their decision.

Mr. Baron (Operative) proposed a resolution to the effect that the resignation be received, but that the Scottish employers be asked to receive a deputation from the Council with a view to getting them to reconsider their decision.

Mr. T. Foster seconded, and after some discussion Mr. Macdonald said he was prepared on behalf of his Federation to agree to the proposal for a deputation, but he hoped that they would come with some definite proposals to give Scotland a Regional Council to look after its own interests.

It was agreed that the deputation should consist of the officers of the Council, together with Messrs. Macfarlane and Anderson.

The following resolution was also agreed to on the proposition of Mr. Foster:—"That, in view of the communication from the Scottish employers and the completion of the negotiations for the admission of the professional bodies, the Administrative Committee be requested to consider the formation of Regional Councils



in accordance with Rule 24 of the constitution, and to report to the next meeting of the Council."

#### REPRESENTATION OF PROFESSIONAL BODIES.

The Chairman welcomed representatives from the R.I.B.A., the Society of Architects, and the Quantity Surveyors' Association to the Council, and it was decided to ask each of those bodies to nominate one representative on the various committees of the Council.

The next meeting was fixed for May 26 and 27 in Edinburgh.

## The Rome Scholarship in Architecture.

### "A National Pantheon."

A DOMED structure of surpassing dignity and beauty, the dome to have an internal diameter of 130 ft., and the structure to be erected in a lake covering 1,000 acres.

It is to be approached by a causeway designed so that a funeral car can be rolled into the building, and will stand in the centre under the dome.

The centre of the building cannot be more than 800 ft. from the shore.

The ground surrounding the lake is parklike and generally level and featureless save for the ancient trees and the great avenue running west to east, terminating on the shore of the lake.

Such are the essentials of what is a truly inspiring programme. The mystery of a great dome, the placidity of water, the dignity of a great avenue of ancient trees and the last resting-place of the great men of a nation.

With what emotion do we regard our great? Is it a matter of sorrow in their loss, or pride in their achievement? Sorrow is momentary. We sing of our great battles and famous charges. We forget that men died. We are proud of the men and their leaders, of our Nelsons and Wellingtons.

So it must be with all our great men. Their loss will be mourned by a few, but their memory will be honoured by the "nation," and a building to preserve the records of their achievement should express the nation's pride.

As to the architectural details of the programme, no form expresses equality, "equality of record," so well as the circle, and no form so well expresses a great dome. The simple dignity of the Roman Pantheon still compares favourably with its Renaissance successors.

The domes of St. Paul's and St. Peter's possess great beauty, but in each case the simplicity of the dome is lost in the complication of the structure.

Apart from the expressive form of the building, the setting is of special importance. Viewed from the shores of the lake, the beauty of the building would be enhanced by its reflection in the still water. The virtue of this will be apparent to those familiar with Venice.

Any wide terraces round the building would naturally reduce such reflection.

On entering the galleries of the R.A., where the designs are on view, one is at first struck by the importance of the drawings. There is a feeling that some of the competitors are more interested in "flashy" rendering than the logical solution of the problem. This may appear cheap criticism, but a careful examination of the schemes only serves to confirm this first impression.

There are serious fundamental errors which refuse to be hidden by the show of colour. The treatment of the site is the most glaring.

To build a great "place" in the centre of a lake, on which to set the building, is not taking advantage of the natural beauty of the setting. If a "place" is needed near the building for the crowds to view processions it should be by the entrance, and not all round the building, where most of it would obviously be ineffective. Again, such a spread reduces the length of the causeway, and the spectacular effect of a slowly moving procession along the low-lying causeway would be lost.

Properly treated the causeway would provide a view

of the procession to crowds on the near shore of the lake, yet some competitors have closed the view by planting trees and monuments along its borders.

The entrance to the building has given trouble to some of the competitors. The conditions obviously demand but one main entrance, since there is only one approach (a procession could not use more); still, there is a design with four apparently equal entrances. Such a design is more expressive in a "place" with four roads converging on it—a building for a city, not a lake. Another has a front and back door, giving a clear way through the building. Why? The building is the climax!

There is a lack of unity of conception in some schemes. Such a dome as this (almost equal to that of the Pantheon, Rome) needs some expression on plan.

There are schemes whose character on plan is entirely "square," and, though this might be structurally possible, it is not the best expression of a domed building of such magnitude.

Again, there are some where the dome is of minor importance, and some where the relation between the inner and outer shells is absurd, where the inner dome sinks into insignificance compared with its great false exterior. This could only produce a feeling of disappointment on the spectator who entered—an anti-climax.

Some of the competitors, however, have studied the programme carefully in all its aspects and have produced logical and expressive schemes, schemes where the building is concerned as a unit, and in which either the plan, section or elevation is a clear guide to the complete design.

Such schemes may lack the spectacular effect of some others, but they do possess a simple dignity entirely in harmony with the character of the subject. They show, too, an attitude of mind in their authors which should lead to real architectural development.

BY A MEMBER OF THE A.A.

## Forthcoming Events.

*Saturday, February 19.*—Architectural Association.—Visit to the Metropolitan Water Board's new offices. Mr. H. Austen Hall, F.R.I.B.A., architect. 2.30 P.M.

*Monday, February 21.*—Architectural Association.—Meeting at 34-35 Bedford Square, W.C. Paper by Mr. H. Gordon Selfridge entitled "Architecture and Commerce." 7.30 P.M.

*Tuesday, February 22.*—Liverpool Architectural Society.—Meeting at 13 Harrington Street. Paper by Mr. W. E. Willink, M.A., F.R.I.B.A., entitled "The Cunard Building." 6 P.M.

*Wednesday, February 23.*—Northern Architectural Association.—Meeting at 6 Higham Place, Newcastle-upon-Tyne. Paper by Mr. Nathaniel Lloyd entitled "Possibilities in Brickwork." 7 P.M.

*Thursday, February 24.*—Concrete Institute.—Meeting at Denison House, 296 Vauxhall Bridge Road, S.W. 1. Paper by Mr. Ewart S. Andrews, B.Sc. (Eng.), entitled "Methods of Securing Impermeability in Concrete." 7.30 P.M.

—Illuminating Engineering Society.—Meeting at Royal Society of Arts, John Street, Adelphi, W.C. Discussion on "The Use of Light as an Aid to Publicity." 8 P.M.

*Friday, February 25.*—Royal Sanitary Institute.—Meeting in the College of Technology, Manchester, when discussions will take place on "The Use of Open Fires for Domestic Heating," to be opened by Mrs. Margaret Fishenden, D.Sc.; "The Present Position of Smokeless Fires," by Captain F. S. Sinnatt, M.B.E., M.Sc., F.I.C.; and on "Air Pollution," by Prof. J. Radcliffe, M.Sc. (Tech.). 7 P.M.

PLANS are being prepared for a church at Southport to be erected on the site of the present All Souls' Church. The foundation stone of the new building may be laid in September.

THE Barnsley Town Council have, by 12 votes to 11, decided, in view of the unemployment in the town, to permit the resumption of the building of cinemas, which had been stopped on account of housing needs. The Housing Committee reported that the work would not interfere with their housing schemes.



## Correspondence.

## The Architectural Assistant.

To the Editor of THE ARCHITECT.

SIR,—I have read with interest the report of the meeting of the Architects' and Surveyors' Assistants' Union and your able and common-sense Editorial comment thereon. If the policy of the Assistants' Union is to become general it will revolutionise the architectural profession, producing a state of things wholly different to those now prevailing. These new conditions will be exceedingly bad for architecture as an art, and I question very much if they will attain the objects aimed at by the Union. It is, to my mind, perfectly clear that any person who chooses to thoroughly examine the question for himself must see that to apply the principles of a trades union to the architectural profession is utterly impracticable, and will end, not in "mending," but in "ending" the profession as we now know it. These principles, if pursued, may result in the establishment of "guilds" of assistants, free to compete on any terms of remuneration, more or less successful, but I fancy are much more likely to result in the transference of architectural practice to the great commercial decorating and furnishing firms, or alternatively to large firms of architects run on a capitalistic basis, or to both. The type of ordinary practising architect, who now constitutes the backbone of the profession, and 90 per cent. of its members, must disappear.

This may have the further result of increasing initial and intermediate salaries to a minimum standard, but it will also, for the overwhelming majority of assistants, preclude the possibility of their ever entering into practice. The successful firms of the future will then be captained by men with the commercial instinct thoroughly developed, and they will produce their artistic and constructional output through the agency of hired men, who will fill the same relation to their principals as the tradesmen of to-day occupies towards his employer. Whether this result will prove to the assistants a "game worth the candle," I take leave to doubt. Certainly it will not tend to the production of good architecture in the true sense of the word; certainly it is not the way in which great art was ever produced in any age, or can be, I believe; for after all, the architectural drawing is, and must be, in its highest form, an Art. If it is no longer that then the sooner it disappears and leaves the field to the building contractor, and the structural engineer, the better.

Although a principal since my early years in the profession, I have the fullest sympathy with the assistant in his desire for a "living wage," to use the cant phrase of the day, and I have always paid as well as I was able. I recognise that many assistants were badly paid, but my experience is not that their employers exploited their talents, sweated their labour, and "waxed fat and grew rich" on their work. On the contrary, my own experience as a pupil, assistant, and principal, was that a relationship of friendly and confidential intercourse existed between principal and assistant. I believe my experience is not exceptional, but common. All this will be swept away by the new methods.

I also share your experience, in that every assistant I ever met, who was worth his salt, was ambitious to become a principal as soon as he had acquired the necessary experience, and the vast majority attained their ambition, most of them within a reasonable period, or got public appointments. I have passed through my hands a large number of pupils in my time, and all with one or two exceptions are doing as well as they could expect in the profession they deliberately selected with all its disadvantages, which to the right man are compensated for by the return which an interest in his art gives him. I have been through the mill myself and would not have had it otherwise.

It may be true that in London certain architects of note have used their position to obtain the services of assistants at low rates. But is the advantage all on one side? Does not the man get an experience that in any other calling he could have to similarly pay for? Does not such a man often come up ignorant of architecture, and leave such an office, after a few years, with a stock of knowledge that stands to him for life, and often lifts him above his provincial fellows? The instance, too, of the Scottish office with fifteen pupils and no assistants must, I fancy, be rather exceptional.

You are right, too, Sir, in saying that the vast majority of architects simply cannot pay salaries of £300 or £400 a year, or the like. In my district a man earning £1,000 a

year net would be regarded as a leader in the profession, and these are very few. The vast majority earn far less than that. I myself, I think I may venture to say without egotism, have a competent knowledge of my profession, have worked hard, and have been considered successful. I have passed many large works through my hands, but never averaged near £1,000 a year net year in and year out, and I should be very glad indeed to-day if I had my pre-war income. I need hardly say I have never accepted, or indeed been asked to accept, less than the standard scale of fees. I have had many assistants whose help, skill, and good spirit I gratefully acknowledge. I have known others very incompetent, and worth but a very small salary. That was due either to their own hopeless unfitness, lack of training, or their laziness, and neglect to learn anything during their pupilage. These are unpleasant home truths, but they are facts.

The whole trouble is that there are too many architects; there is not enough work to go round. In this district I should say that there must be nearly ten architects for one or two there were thirty years ago, and there is much less work. To talk of increasing fees in such conditions is foolish. People would simply do without architects whenever they could.

I also entirely support your contention that the present fees are sufficiently high to ask the public to pay. With a reasonably good practice a man may earn a modest competence, or if he is fortunate enough to have a constant succession of large jobs a fairly good income may be his. It would be very desirable if the Institute could in some way place a check upon entry into the profession and so bring about some fairer proportion between the requirements of the public and the supply of architects. For several years past the profession has been "diluted" at an entirely excessive rate. For the numbers joining to-day there is absolutely no possibility of remunerative incomes, for the simple reason that the work to yield such is not there.—Your, &c.,  
"F.R.I.B.A."

To the Editor of THE ARCHITECT.

SIR,—I ask for space to reply to your article "The Architectural Assistant."

Your argument is briefly this: The majority of architects have an income of less than a £1,000 a year, therefore they are unable to pay assistants £300 or £400. In other words, the scale of fees fixed by the R.I.B.A. does not allow for a proper salary for the assistant.

Does the R.I.B.A. admit this?

If it does, I ask: Why is the architectural assistant to be underpaid while all the other members of the building industry—labourers, bricklayers, carpenters, painters, clerks of works, and so on, and so on, receive a just wage?

All these labourers, bricklayers, and the rest "worth their salt" hope for a rise in life, just as the assistant does, but they are not underpaid as he is.

Why, out of all these men, is the assistant the one chosen to receive a very low salary?—Yours, &c.,

HENRY HYAMS.

February 14, 1921.

To the Editor of THE ARCHITECT.

SIR,—It seems to me you are still unwittingly, may be, misleading or misled with regard to the architectural assistant and workers similarly placed to himself.

In the statement, however, to which you so firmly adhere, "that the man who is satisfied with being an ordinary assistant to a private architect all his life may usually be described as not being worth his salt," I am almost inclined, strange to say, to agree with you. On face of it, it looks a sweeping statement, and, of course, is likely to "blind" many readers by its brilliance; but let us just ask, "How many are so satisfied?" Thank God the number is almost negligible, as also the number who are content to occupy small positions in banks or insurance offices, or the number of skilled men in any trade who are content to remain at the bottom. It is this dissatisfaction that is the cause of the whole Trade Union movement, that has called into being the co-operative societies all over the world, and of which the latest evidence is the rise of the Building Guilds.

The discouragement of the pupilage system I am glad you agree with, because this is one of the most potent factors in promoting the difficulties my Union are striving to overcome, the substitution of a better system which will operate for the benefit of assistants throughout the country is engaging our earnest attention at the present time.



Although the amount of building has been reduced on which it is necessary for a practitioner to employ assistants, the average assistant is not paid a fair proportion of the remuneration received. I still maintain that the assistant's salary and other expenses should be the basis on which scales of charges should be founded—not *vice versa*.

My Union has no sympathy with the assistant who calculates the experience he gets as a part of his salary, as his private means are used to reduce salaries, and penalise his brother assistants who have no such means.

Your suggestion that architects and surveyors may be reduced to doing all work themselves is amusing, but not at all likely; I firmly believe the vast majority would much rather agree to the very reasonable minima set down by my Union. The assistants in our professions are underpaid not only actually but proportionately.

We do not view the practising architect as a capitalist, though unfortunately many ape him, but as a master worker employing others to assist him. This, however, does not relieve him of the onus of paying such assistants properly. By underpaying them he degrades his profession, and it is difficult to see what will be his ultimate gain in so doing.—Yours, &c.,

CHAS. McLACHLAN, Hon. General Secretary.  
33 Tothill Street, S.W. 1.  
February 15, 1921.

### Architectural Students' Competition.

To the Editor of THE ARCHITECT.

SIR,—I will not enter into controversy with Mr. Atkinson on the points that he raises: he may be right or wrong in his views, and few things are too perfect for amendment; but I suggest to him seriously that his right course is not to publish his criticisms in the Press when he has in his own hand the means for securing all that he wishes.

The Institute Prizes are awarded, not by any jury of assessors, but by the Council of the Institute, which is a body elected by all the members. The Board of Architectural Education advises the Council on matters relating to the prizes, and if Mr. Atkinson had criticisms or suggestions to offer, his obvious course was to bring them before the Board of which he is a member, knowing quite well that full weight would be given to any proposals made by him. If he failed to convince the Board, he could deal with the matter in the Council of which also he is a member. He has every opportunity of knowing the names of those appointed to study the work sent in for the prizes, of revising the conditions that he describes as arbitrary and slipshod, of amending the programmes that he objects to, of securing the publication of lists of names, and of excluding assessors whose selective ability does not seem to him to be up to the standard that he desires.

He advises students not to compete except under conditions which he outlines, but he has not brought these conditions before the notice either of the Board or the Council.

As regards his claim for students' work to be dealt with by young men who have sympathy with the attitude of the student, may I remind him that in the very Committee that he particularly refers to, out of a total of eight members there was only one who could not be described as a young man, and he is at the head of one of the architectural schools. As a matter of fact, he was not present. All the others were men who are well known for their active interest in schools and students.

The Press should be used for the discussion of broad matters of principle; questions of administration are better dealt with in the bodies that are concerned with them.

Yours, &c.,

ARTHUR KEEN, Hon. Sec. R.I.B.A.  
4 Raymond Buildings, Gray's Inn, W.C.,  
February 15, 1921.

### Cost of Building.

To the Editor of THE ARCHITECT.

SIR,—The National Federation of House Builders regrets to state that there is no reasonable ground for the recent rumours of a fall in the cost of house building. Dr. Addison has stated that contracts can be let at £100 per house less than was possible a few months ago, and this appears to have inspired many prophets to predict a rapid fall in the cost of the house.

Unfortunately the facts do not confirm these rumours, for prices are constantly increasing, and it is more expensive to build to-day than it ever was. The increase since the end

of March last year in the cost of the necessary material for one house in Manchester, which is typical of the country is £130. In London the increase during the last twelve months is 20 per cent. of the then cost, and consists of such items as cement, 73s. 6d. to 90s. 6d.; lime, 63s. to 80s. bricks, 75s. to 97s. 6d.; facing bricks, 130s. to 165s.; tiling 62s. 6d. to 97s. 6d. There has been a slight decline in the price of timber due to the reduced freight charged, but in almost every other item substantial increases have taken place.

In view of these hard facts the repeated statements as a reduction in the price of houses are misleading. The reduced tenders obtained by the Ministry of Health may be due to a variety of causes quite apart from the cost of building; the specification may be different, the administration may be improved, or the conditions may be varied. Wages have increased by 20 per cent. during the past year and as labour is the chief item in the production of houses there cannot possibly be any reduction in the cost of building until very different conditions prevail.—Yours, &c.,

THE NATIONAL FEDERATION OF HOUSE BUILDERS.  
100 King Street, Manchester.

### Fall of a Ceiling.

To the Editor of THE ARCHITECT.

SIR,—The case of Brannigen v. Harrington, reported recently in "The Times," is a confirmation of the danger of the ordinary plaster ceiling.

In this particular case the plaintiff was suing for damages owing to the injuries sustained by a portion of the ceiling falling and injuring her. The Court held that in the case of guests in an inn or eating-house there was an implied warranty in contract that the premises should be as safe as reasonable skill and care could make them, subject to the limitation that the defendant was not liable for defects which could not have been discovered by the exercise of reasonable skill and care on the part of anyone concerned. The judge found for the plaintiff, and is reported as having said, "An accident of that kind, however, could not happen without negligence on the part of someone. Ceilings did not fall if due care were taken when they were put up and when they were repaired."

In view of this interpretation of the law, it would appear that a ceiling could only fall with negligence on the part of someone. One of the papers reporting on the case commented: "Is this, however, the case in these days of heavy traffic when buildings are exposed to such severe vibration?"

The remedy would seem to lie in the elimination of plaster for ceilings. Ceilings can be erected of a wallboard such as Fiberlic; this wallboard is a homogenous material which is nailed on to the flooring joists. It is impossible for it to fall or even crack, and once erected will last a life time. It can be quite easily decorated with paint or distemper, and in addition to being highly fire-resisting, is an excellent sound deadener and insulator. Rooms lined with this material will remain cool in summer and warm in winter.

Fiberlic wallboard has been approved by the Ministry of Health for any subsidised or State-aided housing scheme.

Those of your readers who are desirous of testing the material can obtain samples and full particulars from MacAndrews & Forbes, Ltd., 65 South Moulton Street London, W. 1.—Yours, &c.,

MACANDREWS & FORBES, LIMITED.  
D. ASHBY FELTON, Director.

February 15, 1921.

### "Consuta" Plywood.

To the Editor of THE ARCHITECT.

SIR,—I have read with great interest your article in THE ARCHITECT, issued on February 4 this year, respecting plywood door panels, and it would appear almost impossible for any material to take the place of plywood for this purpose. This applies also to many other purposes for which plywood is used. When, however, larger sizes are desired and extra strength is needed, there is another form of plywood which is as yet little known except in certain industries. This new product is called "Consuta," which term means "sewn together." "Consuta" has all the advantages of plywood together with the following additional ones:—

It can be made in any size or shape that comes within measurements—60 feet long and 8 feet wide.



edford Lemere & Co.

Architectural and Technical  
PHOTOGRAPHERS,

7 Strand, London, W.C. (FIRST FLOOR)

PHOTOGRAPHS TAKEN & PROOFS DELIVERED  
SAME DAY. PRICE LISTS & ESTIMATES FREE.

ESTABLISHED 1862. TELEPHONE 4258 CENTRAL



VENUS

17 degrees  
Blacklead  
6B (Softest)  
to  
9H (Hardest)



For  
Architects  
& Builders

Of all Stationers &  
Drawing Office Suppliers

6d. each, 5/8 per dozen.

PENCILS

"VENUS" Lower Clapton Road E.5.

# SIEGWART FLOORS

TIMBER FOR CENTERING ENTIRELY ELIMINATED



FIREPROOF.  
PERMANENT.  
HYGIENIC.

SOUNDPROOF.  
ECONOMICAL.  
SPEEDY  
ERECTION.

Write for Booklet.

Hosiery Factory, Leicester.

SIEGWART FIREPROOF FLOOR CO. LTD.

Head Office : 231 STRAND,

Telephone : 4094 Gerrard.

LONDON, W.C. 2.

Telegrams : "Nocentring, Estrand, London."



It has additional strength through being sewn together and the plies cannot under any circumstances come apart.

All classes of timber can be used from the cheapest to the finest woods.

It will withstand the utmost vibration and is not affected by atmospheric conditions.

The reader will readily perceive that although the price must be a little dearer than ordinary plywoods on account of the additional processes necessary to manufacture the article, there should be a great field for this new material. The fact must not be lost sight of that although the original price per square foot may be greater than ordinary plywoods, this extra expenditure is more than saved, when it can be purchased in such large sheets, as the actual timber and labour saved in fixing is obviously great.—Yours, &c.,

H. B. W.

31b Parade Mansions, Golders Green, London, N.W.

February 10, 1921.

## General.

AYR Dean of Guild Court have passed plans for the reconstruction of the Ayr Picture Palace, Alloway Street, at an estimated cost of £10,000.

MR. CAMMACK DENNIS, of Agincourt, Manchester Road, Bury, Lancs., head of Messrs. C. Dennis & Sons, builders and contractors, Bury, well known as a builder of mill chimneys, left estate valued at £29,152.

THE Redbourn Hill Iron and Coal Co., Ltd., are contemplating the erection of a fully-licensed hotel at Brumby which is estimated to cost about £40,000. At the last Scunthorpe Brewster Session the firm's application for a licence was refused.

IN a case heard at Clerkenwell County Court last week, under the Rent Restrictions Act, Judge Scully held that the transformation of three houses into a factory did not constitute a "new building" so long as the whole framework of the old houses remained intact.

THE Wandale Valley joint sewerage board, whose area covers Mitcham, Beddington, Wallington, Merton, and Morden, proposes to reconstruct sewerage works at Mitcham at an estimated cost of £300,000. The work was originally contemplated before the war, when the cost would have been £64,000.

THE Salford Borough Council, at its meeting on the 10th inst., agreed to make application for sanction to borrow £184,560 for the erection of 184 houses at Weaste, and to accept the tender of the Building Guild, Ltd., Manchester, and the Co-operative Wholesale Society, Manchester, for their construction.

THE Urban District Council of Rugeley are now considering the question of increasing their water supply. The present system, which was designed and carried out in 1894, has been a complete success, but considerably more water is now required. The Council have instructed W. H. Radford & Son, of Nottingham, who were the engineers for the original scheme, to report upon the best method of increasing the supply.

THE West Lancashire Rural District Council have been informed that their effort to give preference to local contractors in building schemes had not been successful. Recently they received tenders for houses which were well over £1,000 each, and the Ministry of Health rejected them as excessive. With a view to economy the plans were altered, but the only tender subsequently received was for £1,000 per house. The architect's suggestion that he might invite tenders from the outside districts was adopted.

THE Secretary for Scotland, as President of the Scottish Board of Health, has appointed a Committee to advise the Board on the question of the supply of building materials to State-assisted housing schemes in Scotland. The members of the Committee are:—Sir John R. Findlay, K.B.E.; Mr. J. G. Stein, President of the Scottish Employers' Council for the Clay Industries; Mr. William Forrest, Quarrymasters' Association of Scotland; Mr. Peter Fyfe, Director of Housing, Edinburgh; Mr. James Thomson, city architect, Dundee; Mr. W. E. Whyte, O.B.E., clerk to the Middle Ward District of Lanarkshire; and Mr. Allan Stevenson, architect, Ayr. The remit to the new Committee is in the following terms:—"To advise the Scottish Board of Health on any matter submitted by the Board to the Committee connected with the production and distribution of building materials required for housing schemes being carried out by the local authorities with State assistance." Sir John R. Findlay has been nominated Chairman of the Committee.

## Housing News.

AN additional 100 houses are to be put up at Severn Tunnel by the Chepstow Rural District Council, and the Ministry of Health have decided that the cost of the drainage must be borne by the two parishes of Rogiet and Itton. This is estimated at £3,352.

MR. THOS. LUBBOCK, builder and contractor, of Lancaster, has been appointed, out of numerous applicants, working foreman of the Lancaster Rural District Council housing scheme at Burnhope, at a wage of £8 per week. Mr. Lubbock was formerly a member of the Council.

THE royal burgh of Renfrew, which was the first municipality in Scotland to complete and have occupied new dwelling houses, is proceeding with the second and concluding part of its housing scheme. At a sitting of the Deacons of Guild Court last week plans were submitted and approved for the erection of 354 houses at Loanhead at an estimated cost of £350,000. The houses will be of three, four, and five apartments with scullery and bathroom. The first portion of the Renfrew housing scheme involved the erection of 18 houses at Newmains. The first half of this portion of the scheme has been completed and sixty of the houses are in actual occupation.

At the special meeting of the Northampton Town Council held in January the Council had before it a tender, by Mr. J. T. Powell for the erection of 118 houses in brick at £1,544 per pair, on the Harleston Road site. The Council decided that Mr. Powell should receive a contract for sixty houses at that price, and that the remainder should be built in concrete, to which end the tender of Mr. W. Higgins at £1,670 per pair was accepted. Mr. Powell declined the contract, and the Housing Commissioner advised the Council with the approval of the Ministry of Health, to accept the tender of Mr. Higgins for the erection of either 58 or 118 houses in concrete at £1,670 per pair. At a meeting of the Town Council last week it was decided to approach Mr. Powell with a view to his acceptance of 60 houses at a firm price of £1,544 per pair, and that in the event of his non-acceptance the houses be offered to Henry Martin, Ltd. whose tender, the next lowest, worked out at £1,700 per pair.

## Trade Notes.

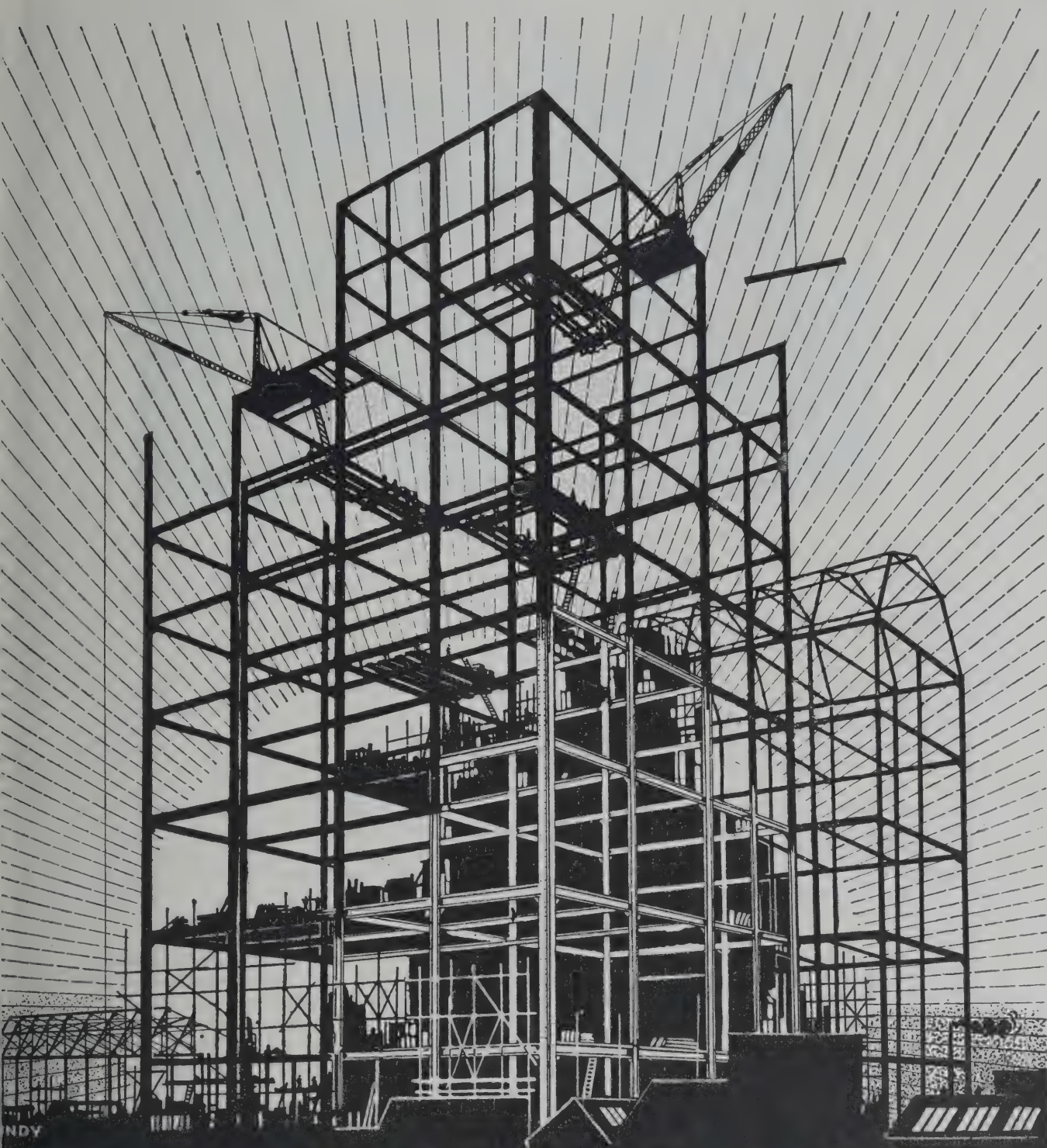
THE Electrical Development Association, 84 Kingsway, W.C. 2, have sent us a small sheaf of propagandist literature, each single leaflet, bookmark, postcard, or booklet, which may be safely calculated to bring in converts. We were specially concerned in EDA 9/3—entitled "The Power behind the Home"—which illustrates the application of electricity to housing schemes at Hammersmith and Stockton-on-Tees.

THE General Electric Co., Ltd., have never issued a more welcome leaflet than No. OS 2,482, which announces substantial reduction in the list prices of Osram and Osram Gasfilled lamps. The introduction of new processes, new types of machinery, and new methods of production, combined with the increasing efficiency of the workpeople at the Osram-G.E.C. factory have resulted in reduced manufacturing costs and an improvement in the quality of these lamps.

THE Protector Lamp and Lighting Co., Ltd., Eccles, near Manchester, show by means of a leaflet the merits of Dixon patent "Climate Relief Valve" as a preventative against kitchen and other boiler explosions. In this simple automatic appliance the resisting power is obtained from mica, which is incorrodible, and, furthermore, the valve is free from any liability of leakage. Another leaflet received from this company briefly gives the points claimed for the "Citadel" door fastener as a protection against burglars and as superseding tower and other bolts.

ALBERT LEE & Co., LTD., 8 and 9 New Zealand Avenue, E.C. 1, inform us that having regard to the demand for the scientific and economical distribution of light for factory, warehouse, offices, and shop lighting, they have opened "Illuminating Engineering Department," under Mr. Sydney Smith, who was for some time demonstrator for the Metropolitan-Vickers Electrical Co., and previous to that with the Holophane Co. Mr. Smith will tour the country lecturing to the trade generally on this subject. He will also, in demonstration, give full details as to the company's heliostat electrical fitting. Mr. Smith's services will be freely given and without any obligation. Any of our readers who are contemplating factories and large lighting propositions are invited to seek Mr. Smith's services, and he will, by appointment, be pleased to go anywhere. In addition to demonstrating the use of the heliostat fitting, Mr. Smith will from time to time introduce new systems of lighting by use of scientific lighting glassware.





# REDPATH BROWN & CO. LTD.

## CONSTRUCTIONAL ENGINEERS

### WORKS AND STOCKYARDS

LONDON  
Riverside Works,  
East Greenwich S.E.

MANCHESTER  
Trafford Park.

EDINBURGH  
St Andrew Steel Works.

GLASGOW  
Pinkston.  
Office 19, Waterloo St

BIRMINGHAM  
Office: 47, Temple Row.

NEWCASTLE-ON-TYNE  
Milburn House.

London City Office:- 3, LAURENCE POUNTNEY HILL E.C.4



## Housing Experiments at Walsall.



DIRECT labour has been an unqualified success in connection with the borough housing scheme at Walsall, where it has been responsible for some of the earliest houses of the Ministry of Health type to be completed and occupied. The borough council has organised its building job on thoroughly progressive lines, with its own joinery and machine shops, light railways and the like, and concrete block-making depôt in which it manufactures, with aggregate chiefly from its own gravel pit on the site, all the blocks necessary for the concrete section of its scheme.

Brick houses as well as those of concrete blocks are here being built by direct labour at Walsall, and the comparison forms a valuable object lesson to minds hitherto prejudiced against the use of concrete in any form for housing purposes. Concrete block houses are too often finished on the outside with rough-cast. With some systems this may be necessary or advisable, but where, as in the present instance, a rich excellent aggregate is obtainable on the spot, suitable for producing blocks of a texture fit for any architectural effect, the blocks themselves are far better left alone. At Walsall all the blocks have been made with two "Winget" Standard Machines, served by one chain-spade mixer, the result has won the highest praise from the numerous bodies of municipal authorities who have visited the scheme from various parts of the country.

From its inception the whole scheme has been carried out by the Borough Surveyor with the aid of a capable staff, of which Mr. W. H. Booth is the chief architectural assistant, the clerk of the works being Mr. S. G. Wilson. At present the Council has 450 new houses in hand, the great majority of which are being built on the Bloxwich site, which has a gravel sub-soil thirty feet deep, and lies on high ground to the north of the town. About 120 of these houses are being built by direct labour. A smaller estate is being developed on the West Bromwich Road.

Some fifty per cent. of the houses on the Bloxwich site—those in brick as well as in concrete blocks—are of the Ministry of Health "B" type, with three bedrooms each. Besides the usual parlour and scullery, a really good sitting-room serves as the nucleus of the house plan. This last was planned with 180 square feet floor space before the Ministry of Health, owing to increasing costs, reduced the maximum space allowed to 160 feet; and as a special concession, due to the economical methods employed at Bloxwich, the Walsall Borough Council has been permitted by the Ministry, whose Regional Commissioner for this area is Mr. H. E. Farmer, F.R.I.B.A., to complete its scheme on the same generous lines. The sitting-room is also provided with a large cupboard which,

with two drawers and flat top, serves as a fixed sideboard. Each bedroom is big enough to take a double bed and a suite of furniture. In the largest bedroom there is room for a cot as well. Other features include a hot closet for airing clothes, and other useful cupboards in the bathroom.

The Ryecroft Farm Land Settlement Scheme—one of the first of its kind to be approved by the Ministry of Health—has also been organised by Mr. Taylor, with the same staff, for the Borough of Walsall. The site is pleasantly situated on the Bloxwich Road, about a mile out of the town, and covers some nineteen acres. Nine pairs of cottages have been built, each facing a newly made road. Each holding is approached from the roadway through a double gateway along a side road to the house, stable, etc. At the rear of each cottage, and separated from it by a fowl run fifty feet long, is a roomy farm building comprising a stable for either horses or pigs, an implement and fodder store, with boiler and flue, and also a fowl house with roost above.

The cottages are of substantial construction, with internal hollow walls of local red brick, and roofed with hand made tiles. On the ground floor is a tiled entrance hall leading to a parlour and a commodious living-room, a scullery with boiler and sink, and a well ventilated larder. Upstairs is a compact landing leading to three good bedrooms, a bathroom and a linen cupboard. The bathroom is fitted with full sized bath and lavatory basin, to both of which there are hot and cold supplies. A closet containing the hot water cylinder forms an airing cupboard in the bathroom. The cottages are lighted throughout by gas, which is also laid to supply a gas cooker in the scullery.

THE Watford Rural District Council have now decided to proceed with the construction of their new sewage-disposal works and pumping main. The sanction of the Ministry of Health has been obtained to the loan. The scheme has been prepared by W. H. Radford & Son, of Nottingham.

THE Chairman of the Housing Committee informed the Stalybridge Town Council, on the 7th inst., that tenders had been received in connection with the housing scheme, and had the lowest tender been of a suitable nature building operations would have now been commenced. The Building Guild gave what they said was a basic price, and on the top of that they insisted on a profit of £40 per house plus 60 per cent. on the basic price. They declined to give any definite price for the houses completed. Tenders received apart from the Guild were considered too high, and the Committee had now slightly amended their plans and some of the inner details of the work, and had decided to advertise for fresh tenders.



## CONTENTS.

The R.I.B.A. and Professional Politics . . . . .	PAGE 135	Birmingham Architectural Association . . . . .	PAGE 140
Illustrations . . . . .	136	Ulster Society of Architects . . . . .	140
Notes and Comments . . . . .	136	Forthcoming Events . . . . .	140
"The Architect" Fifty Years Ago . . . . .	137	The British School at Rome . . . . .	141
London Art Galleries . . . . .	138	The Architect's Assistant . . . . .	142
Art News of To-day . . . . .	138	Correspondence . . . . .	143
The Architectural Association . . . . .	139	Tests of Stone . . . . .	146
Royal Institute of British Architects . . . . .	140	British Industries Fair, Birmingham . . . . .	148

## The R.I.B.A. and Professional Politics.

*We have briefly summarised conclusions on points which are often discussed among architects, and have indicated a broad policy which would, we believe, meet with general support.*

THE Royal Institute of British Architects was founded for the general advancement of "Civil Architecture," and many argue that it should not concern itself with anything but matters of æsthetics. This is surely a mistaken view, and one which would presuppose the possibility of producing great architecture automatically and without reference to the important human factor in the equation. If architects are engaged in a hard struggle for a scanty and uncertain living it can hardly be imagined that the promotion of Civil Architecture will be encouraged, whereas if they are well organised and efficiently protected by the good administration of their chief body in practical matters they will be freer and abler to devote themselves to the furtherance of the aim expressed in the Charter of the Institute. It is with the object of suggesting means by which these aims can be better effected that it is proposed to touch on a few of them.

**1st. The Position of the President.**—The President by custom controls the bestowal of patronage and the allocation of appointments. He may, it is true, consult his Council in certain cases if he feels inclined to obtain their views, but he is not bound to do so. No suggestion is made that any President is inspired by any but a sincere desire to do the best for the profession of which he is titular head, but it is almost inevitable at present that, from time to time, through ignorance of knowledge which others may possess, his appointments are ill-advised. It is believed that if all appointments were made by the President and Council instead of by the President alone, a nearer approximation to justice would be effected, while the President would obtain some relief in what may prove a heavy responsibility. The Council of the R.I.B.A. is large, and in its ranks are men of wide and varied experience which could not be more effectively utilised than in assisting in this important and responsible duty.

**2nd. The Advantages of a Poll.**—It is the claim of the Institute to be the representative body of the profession, but this claim is sometimes almost negated in practice. Its meetings represent—not the profession as a whole—but what may be described as being for the most part a small sprinkling of metropolitan members who have found it convenient to attend. Issues arise from time to time on which metropolitan and provincial opinion may be sharply divided, and though the Council includes representatives of allied societies they are not infrequently prevented from attending, and in any case are in a minority. Thus it sometimes happens automatically that provincial architects having the same rights as their London colleagues are practically disenfranchised. As a means to obviate this and make the R.I.B.A. more fully representative of the profession it is suggested that on a demand made by a given number of members a poll on any question shall be taken of the whole of the members of the R.I.B.A., the outcome of such a poll determining the policy to be adopted or pursued. When the Council initiates a measure, the merits of which may be controversial, it should institute such a poll, being as before bound by the result. In this manner the Institute might be made more closely representative, while an element of "politics" would be actually partly eliminated by a political reform. For if

members felt that in electing a member of Council they were choosing an eminent architect, and could do so freely even if his views on controversial matters were not their own the danger of elections run on what may be called the party ticket would be eliminated.

**3rd. The Reform of Competitions.**—The R.I.B.A. in past years has succeeded in obtaining something like a complete public recognition of the fact that competitive design ought to be adjudicated on by expert opinion. It has unfortunately done little or nothing in regulating abuses within its more defined sphere and absolutely under its control. The public body which proposes unfair conditions finds its competition black-listed, but competitors are subject to the results of the continual incompetence or unfairness of many assessors appointed. And, whereas although even a High Court Judge may have his judgment set aside and reversed on appeal, the R.I.B.A.'s only concern seems to be to insist that the assessor's award, good or bad, just or otherwise, shall be final and binding on all parties. If public bodies had any idea of the high proportion of cases in which an assessor's award is wrong, they would never agree to accept it as being final and binding. The reform required is, first, the notification to public bodies that, should complaints be made that conditions binding on competitors have been overlooked or disregarded by him in giving his award, and if these complaints are found to be justified by a Committee of Appeal at the R.I.B.A., the award shall be quashed and the competition re-assessed by a fresh assessor appointed by the R.I.B.A., to whom the fee agreed upon shall be paid, the assessor first appointed receiving no payment for work he has done inefficiently. It should be open to any competitor to lodge a complaint at the R.I.B.A. within a certain time-limit, but he should, in doing so, pay a deposit, which would be forfeited to the R.I.B.A. should his complaint be found, on investigation, to be unfounded, but should be returned to him if his claims are substantiated. Only by such means can a system, the working of which is discreditable to the intelligence of architects, be finally and satisfactorily adjusted.

**4th. The Unification of the Profession.**—The so-called unification of the profession in a restricted sense (the inclusion of the Society of Architects) is now being dealt with by a Committee, and until the findings of that Committee are known need not be discussed. There is, however, another and most practicable way of obtaining greater unity and enthusiasm among architects. Although every great educational body has now its architectural school, the Architectural Association is specially important, both by reason of the very high standards achieved, and because, like the R.I.B.A. itself, it is a body purely supported by architects and controlled by them. The present location of the R.I.B.A. in Conduit Street has nothing to recommend it: it is both expensive and far removed from other centres of associations connected with building. Were the R.I.B.A. premises moved to the neighbourhood of Bedford Square, the R.I.B.A. library could be used by students of the Association, and the A.A. premises, which have been fitted up as an architectural club, by members of the R.I.B.A., while in many ways economies of administration could be effected. The bringing together of the senior and junior bodies of the profession would be a gain to both. In Bedford Square also the two great building organisations, the National Federation of Building Trade Employers of Great Britain and the London Master Builders, both have their central offices, and it may be pointed out



that contractors and architects are in reality the two severed divisions which in our more complicated civilisation represent the master builder of the past. Their objects do not conflict: they are necessary to one another, and many subjects, such as building contracts, should be dealt with by joint committees instead of independent ones. The failure of architects and builders to agree on a form of building contract is evidence of a defective method of handling questions which are debatable but ready for solution if common sense is exercised.

**Generally.**—It is frequently urged that the profession should make a greater endeavour to assert itself; that it should endeavour to influence the Government and to secure a fuller recognition of architecture. In the first place, it is patently absurd to suppose that a calling, which only includes a few thousand members, can exercise political power in the modern sense, while it is also equally obvious that only by much closer association with the larger body of building-trade employers can it expect

to exercise much authority. Contractors as a body would welcome that closer association, and would, were we to seek it, give us a full voice in their deliberations. Our interests and our policy should be one, for we are both primarily interested in arriving at a reasonable understanding with Labour.

We may also urge that so long as the profession mismanages, as it has in the past, its own internal affairs, it is absurd to suppose that it can extend its influence. Internal reform and sane administration are the first preliminaries before it can lay claim to a greater and more firmly established status.

And the greatest of all internal reforms is to sweep away all barriers which stand between the average practitioner and justice; to make each architect, whether prominent or unknown, feel that he is a member of an organisation in which he has equal rights and equal opportunities with others, whether he lives in London or in the provinces.

## Illustrations.

THREE MEMORIAL TABLETS. MESSRS. BODLEY & HARE, Architects.  
DESIGN FOR WAR MEMORIAL, PENSURST CHURCH. G. GILBERT SCOTT, A.R.A., Architect.  
OSWESTRY PARISH CHURCH WAR MEMORIAL. G. GILBERT SCOTT, A.R.A., Architect.  
PROPOSED WAR MEMORIAL, GOLDERS GREEN. HERBERT A. WELCH, A.R.I.B.A., Architect.

## Notes and Comments.

### The R.A. Exhibition.

WATER COLOURS, pastels, miniatures, and architectural drawings are to be sent to Burlington House on Thursday, March 24; oil paintings on Saturday, March 26, and Tuesday, March 29; and sculpture on Wednesday, March 30. Small photographs of architecture and architectural sculpture not exceeding half-plate size will be admitted, but only in connection with working drawings and included in the same frame. Good geometrical drawings of moderate size are desirable. Architectural drawings which are the work of an artist other than the designer must have the name of the draughtsman clearly inscribed on the mount, but the draughtsman's name will not be included in the catalogue.

We consider that the limitation of the size of photographs and the provision that they must be included in the same frame with working drawings is a retrogressive step, as it would appear that the only essential point is whether the building in question is best shown by a photograph or by a drawing, and whether the photograph is a good one. After the door has been opened to a much-needed reform it seems a great pity that it should be partially closed again. The only object of the architectural exhibition at the Academy should surely be to show architecture, and it should be left to architects to show it in the best manner possible.

### The London University Site.

THE London County Council, without discussion, passed to the Education Committee the instruction contained in Captain Swinton's motion that the committee should confer forthwith with the Improvements and Building Acts Committees on the question of the site at Holland Park for the University of London. The committees are asked to submit a recommendation so drawn as to give the Council an opportunity of arriving at a decision in the matter, with due regard to the development of London and other large questions of policy involved.

The University of London, for very obvious reasons, have been more than half-hearted in their acceptance of the Government's proposals for the acquisition of the Bloomsbury site, and it is not surprising to find the London County Council endorsing a counter-proposal which has many points in its favour. The Holland Park site is larger and is not intersected by streets, while it is in close contiguity with the various educational buildings at South Kensington which house educational sections of the University. But Bloomsbury has the advantage of the proximity of the British Museum and of University College. The question is a very complex one, and we feel that the authorities have been more than a little arbitrary in their treatment of the University.

### £100,000 Building Banned.

ORDERS given by the London County Council to stop the construction of a new factory in Old Street, E.C., will have the effect of adding between 600 and 700 men to the already enormous total of the London unemployed. The works are being erected for Messrs. Charles Churchill & Co., machine tool makers, of Leonard Street, Finsbury, by Messrs. Holland & Hannen & Cubitts, Ltd., of Gray's Inn Road, and are estimated to cost £100,000. They have already been built up to the pavement level, and the contractors are ready to start on the steel construction and concrete work. We are sorry to see the above announcement, but hope that in a few months' time these hold-ups, which are damaging to the building trade and to the general cause of employment, will be incidents of past history.

### "Luxury Buildings."

MR. W. G. R. SPRAGUE writes to the "Era" stating that, in view of widespread unemployment, he is unable to understand the continued prohibition of theatres, cinemas, concert halls, and other similar buildings, especially as this means the continued non-employment of special joiners, marble workers, plastic workers, constructional engineers, as well as the non-employment of thousands who would receive employment if such buildings were built. We believe that though these restrictions are still in force, they are no longer being acted on, and that many bodies, including the London County Council, are now considering and reporting on schemes which were side-tracked a few months ago. The fact is, as we have elsewhere said, that the megalomania of the Labour leaders is forcing those in authority to take saner and more common-sense views of facts, and that there is reason to believe we are on the way back to more normal conditions. We believe that Mr. Sprague will find that in a year's time the evils which he very rightly complains of will have disappeared, and that in the interim those in authority will surrender position after position, and will probably state they always wished and intended to do so!

### The Soul of Good in Things Evil.

WE have been told that the mills of God grind slowly but they grind exceeding small, and the troubles that we have been subjected to by the wholly unreasonable attitude of Labour seem likely to bring their own Nemesis and to pave the way for better things. Had the working classes, and especially those in the building trades, "done their bit" on the Government Housing Scheme a large part of it might now be under way and the country saddled with an enormous expense. But entreaties, promises and threats—which will not be carried out—have

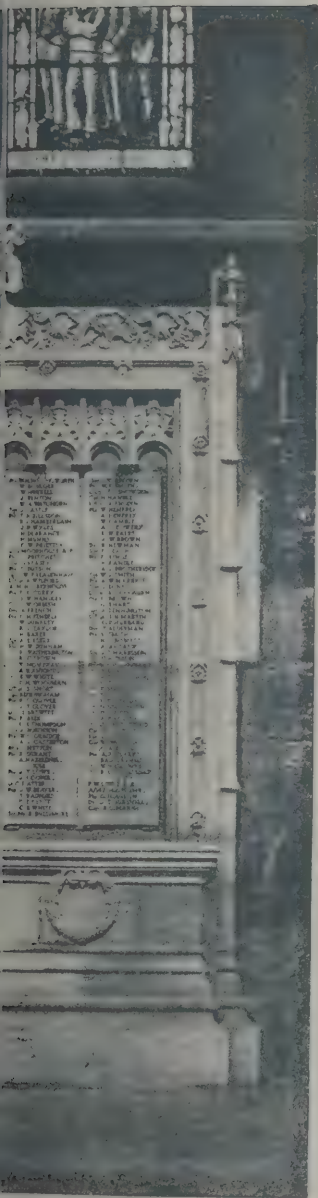








Y 25th, 1921.



OUNDLE.

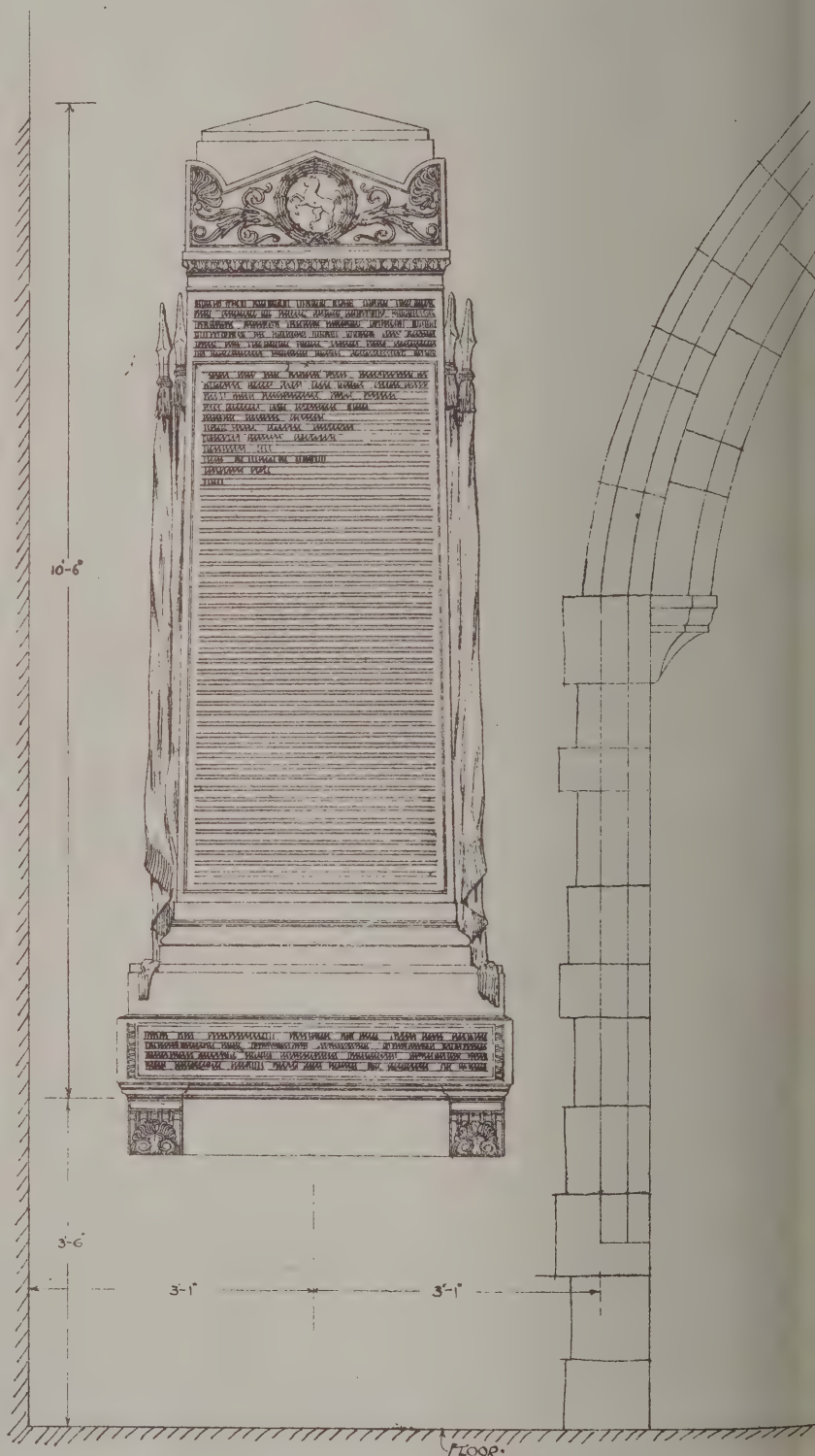
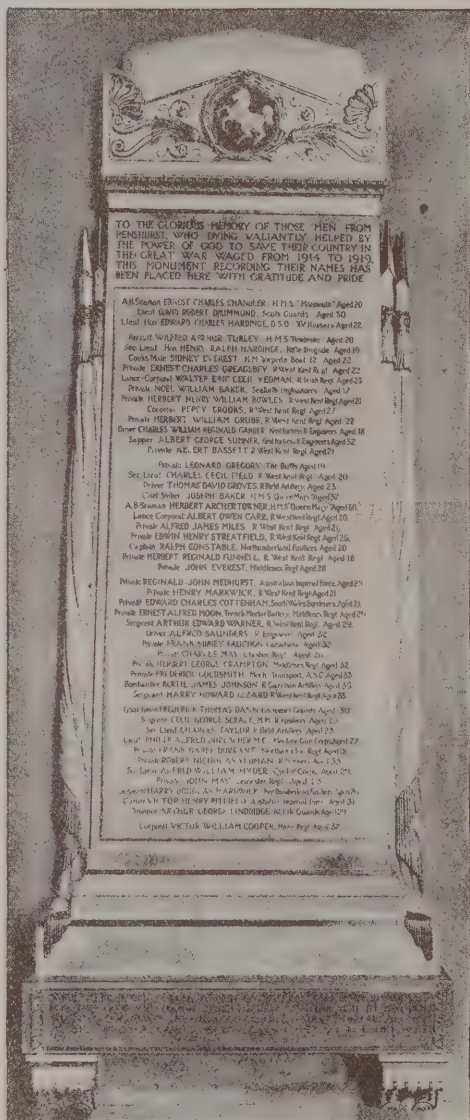
"INK- PHOTO" SPRAGUE & CO. LTD. 69 & 70, DEAN STREET, SOHO, W.

RS. BODLEY & HARE.







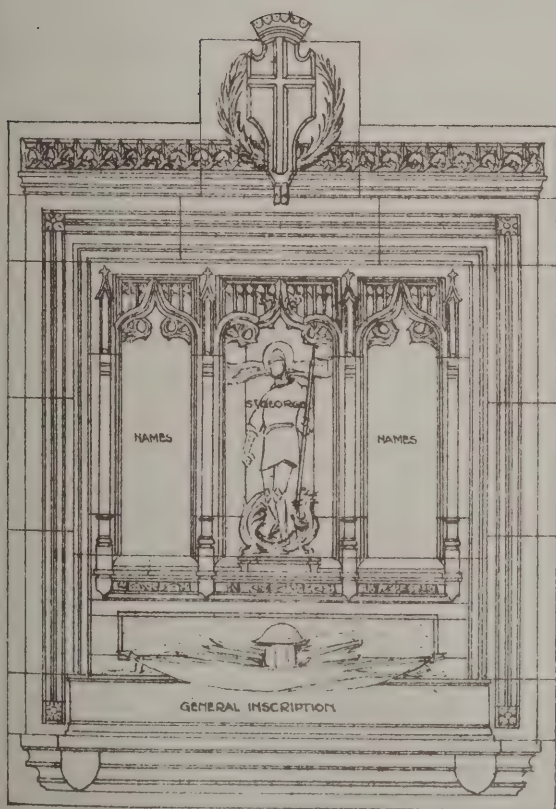
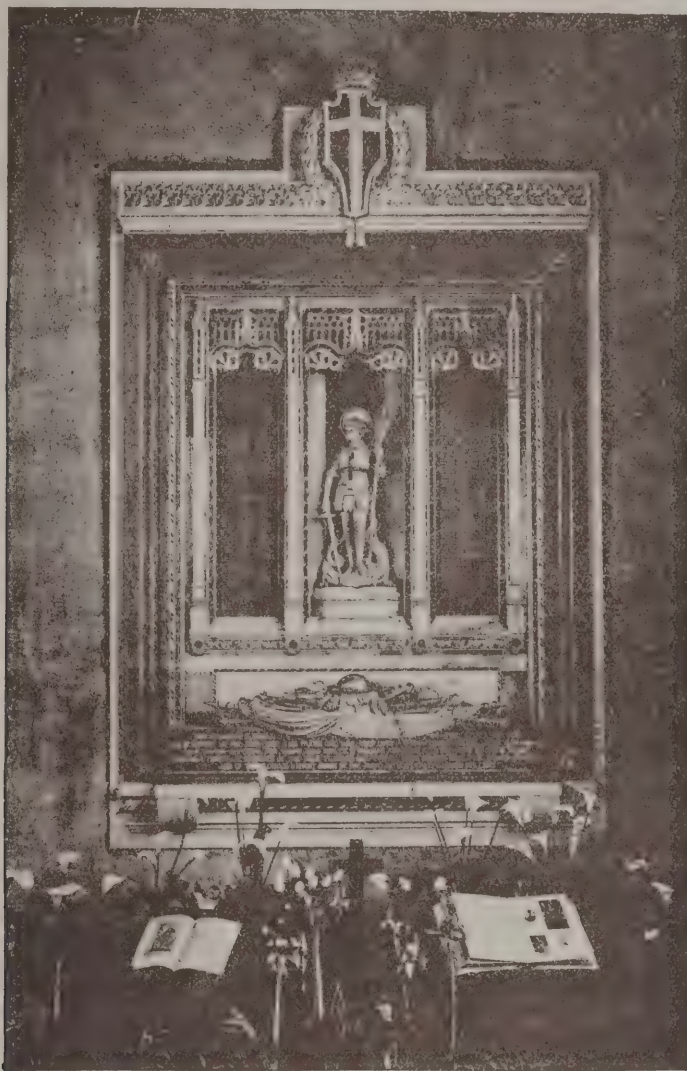


6. GILBERT SCOTT. ARA. ADULT.  
7. GRAYS INN SQUAD. LONDON. W/C



# OSWESTRY PARISH CHURCH.

## War Memorial.



### MATERIALS:

TOP CORNICE, CRESTING & "SHIELD & WREATH" DEVICE, BERE STONE.  
CORBEL Moulding AT BOTTOM & FILLET SURROUNDING " " " "  
FRAME GRAY FOREST OF DEAN. OILED.  
CENTRAL PORTION INSIDE FOREST OF DEAN FRAME } WHITE ALABASTER  
EXCEPT PANEL BEHIND FIGURE (ROSSO ANTICO MARBLE)  
& SIDE PANELS CONTAINING NAMES (ROSSO ANTICO MARBLE)  
PANEL BEHIND WAR TROPHIES TO BE MILLERS DALE, DERBYSHIRE OR  
OTHER APPROVED MOTTLED CREAM MARBLE.

G. GILBERT SCOTT, A.R.A. ARCHT.  
7, GRAY'S INN SQUARE, LONDON, W.C.1.



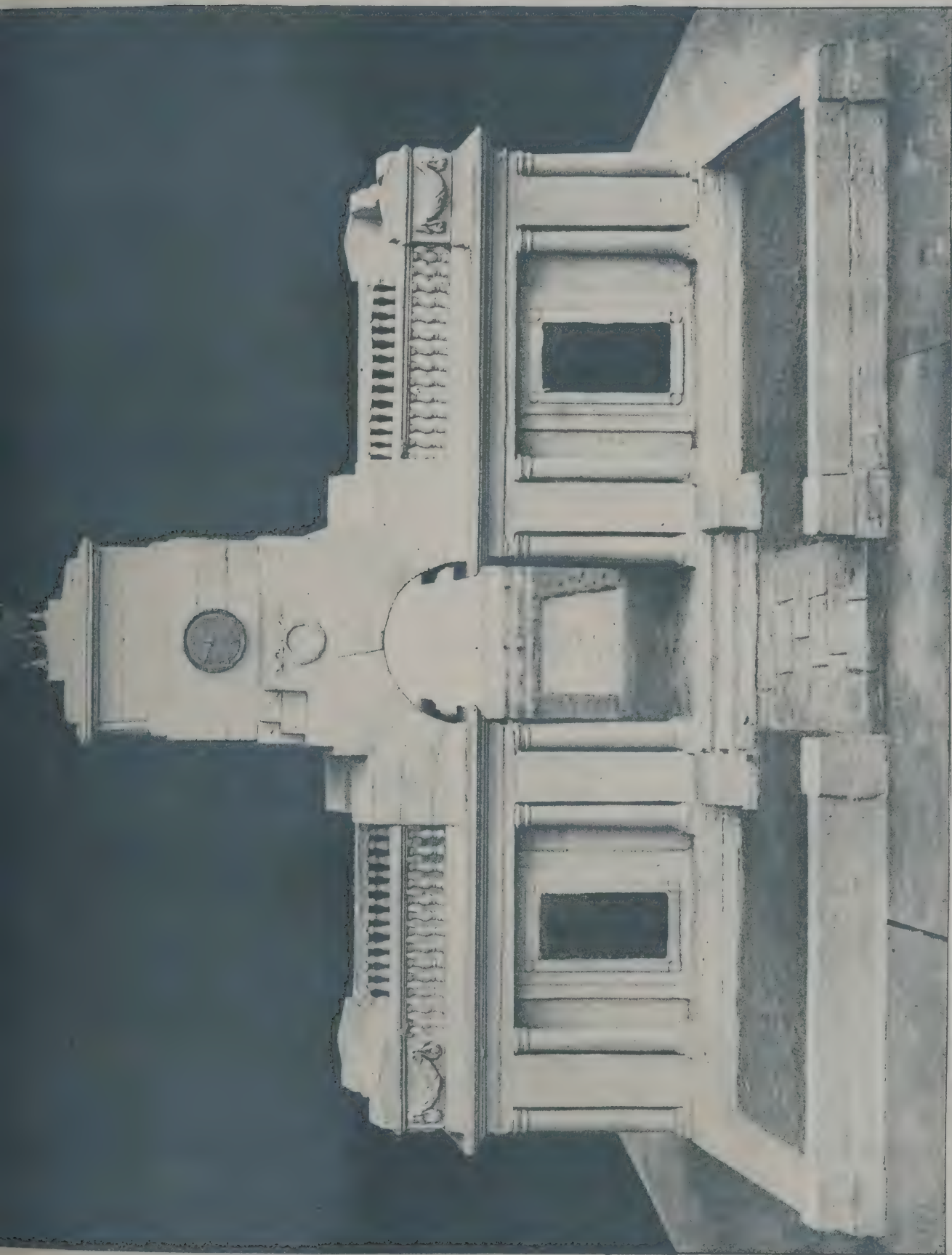




THE ARCHITECT, FEBRUARY 25th, 1921.







THE PHOTO SPREAD N. 1. 65 & 70 SEAT STREET 50 x 11 1/2

PROPOSED WAR MEMORIAL, GOLDERS GREEN.

HERBERT A. WELCH, A.R.I.B.A., ARCHITECT







MEMORIAL TABLET, S. ALDHELM'S CHURCH, BRANKSOME, BOURNEMOUTH.  
Messrs. BODLEY & HARE, Architects.

proved ineffectual, and only a fraction of the ambitious scheme is actually going on. The opposition to dilution is a blessing in disguise, for it has kept up the price of housing until even its advocates cannot quite swallow the bill, and the end of a hopeless Ministry is almost in sight. We shall be surprised and disappointed if the end of this year does not see the housing branch of the Ministry disavowed and a reversion made to private enterprise. Meanwhile it is not the public who should be dismayed at the Labour extremists, who have given a convincing proof of their inability to use weapons thrust in their hands. They have wasted and exacted terms which have put the community against them, as coming municipal and Parliamentary elections will show. In the same manner the colliers are hoist with their own petard: we have plenty of coal, because the cost of obtaining it is so great that we have in a large measure lost the market that used to be ours, the foreign sale. Presently the pressure of facts, meaning short time and decreased demand, will bring about wages based on a more reasonable scale, and we shall, in spite of the attempt to create Utopias, be once more on the way to the *status quo ante bellum* which, while not ideal, was better than anything which ardent reformers have been able to effect.

### The H.A.C.

R. JOHN BETTS, who wrote a most vivid and interesting history of the Irish Society, has written "The Story of the Honourable Artillery Company," which is issued in the form of a very attractive booklet with the object of obtaining recruits for what is the premier among our volunteer corps as well as the most ancient. For the charter of the Society was given in 1537, and like most similar charters was granted to a body which was then of great antiquity, and it is even stated that it may be traced back to 1087, when certain merchants banded themselves together to protect their goods as the city was then infested by robbers. The constitution of the Artillery Company is very similar to that of a City Company, and its history is woven into that of the country in which it has played a prominent part. As shown in the

"Story" its premises though not possessing much architectural merit are interesting and pleasing, while both the Court Room and the Long Room possess considerable distinction. Before 1899 the Company was directly under the Crown as distinct from Parliament, but after that date it was put on the same footing as other armed forces. The force comes under the operations of the Territorial Force scheme on mobilisation, but retains its separate and distinct position. The subscription is small—£2 2s. a year, which covers most expenses, while the Armoury House forms one of the best and cheapest clubs in London, where meals are served at a very moderate charge. It is to be hoped that the present appeal will result in the desired influx of suitable recruits.

### "The Architect" Fifty Years Ago.

FEBRUARY 25, 1871.

THE criticisms we have felt it to be our duty to publish respecting the Design of the New Post Office have given rise to an official explanation in the House of Commons, which must be assigned a high place amongst the remarkable architectural utterances of the Legislature. An honourable member asked the First Commissioner to say what he thought of an article in this paper of January 28 by "A Member of Council of the Institute." Mr. Ayrton replied that the writer had described the building as being "the ugliest that had ever been conceived, a thing entirely devoid of architectural knowledge, and an appropriate result of the want of skill of the Department of Public Works;" and it seems that sympathetic cheers confirmed at this point the very decided views attributed to our correspondent. As often happens, however, in similar cases, the Ministerial orator was presently able, by a dexterous flank movement of rhetoric, to turn this expression of feeling to the considerable advantage, as he at least supposed, of his own cause. The gentlemen of taste had halloo'd, not merely before they were out of the wood, but before they were well into it; and no doubt the astute member for the Tower Hamlets at this moment considers that, before he had done with them, they had suffered so much of the shame of being caught in their own trap as to furnish a lesson which ought not to be lost upon the artistic critics of future occasions.



## London Art Galleries.

(All Rights Reserved.)

No more remarkable display has appeared in London for many years than that of the Franco-British exhibition of textiles now on view in the Victoria and Albert Museum: that it is so is in great measure due—and it is only fair to make this statement—to the splendid effort of our Ally, and more specifically to the French Committee, with M. Saville Seligman, Commissaire-General for France, and M. Dumonthier, Administrator of the Mobilier National. This is not in any way to disparage the efforts of our own committee, or of those on our side who have contributed noble tapestries, among whom we shall find H.M. the King, the Duke of Rutland, the Duke of Portland and others: but the fact remains that it is the magnificent line of superb Gobelins tapestries lining the walls in the two great courts which gives to the display its exceptional and splendid effect. We begin in the South Court with the quaint Franco-Flemish Falconry piece of early fifteenth century work, very lovely in colour, and a whole series of Flemish tapestries, which, with their careful, precise figures and Gothic lettering of names make an absolute contrast to the delightfully free Beauvais tapestries of classic mythology (the "Vertumnus and Pomona" is attributed to Boucher) which we come to next, or the military scenes (also Beauvais—late-eighteenth century) by François Casanova. Two admirable pieces on the same walls are the "Retour de la Pêche" and the "Foire Chinoise"—both Beauvais, mid-eighteenth century—showing in subject that fashion for "Chinoiserie" in art during this epoch in Europe.

But it is still more the Gobelins tapestries of the "Salon d'Honneur" of the North Court which are the special glory of this display: for here we see before us the severe and truly regal dignity of the age of Louis XIV. Even the carpets here displayed, the famous Savonnerie carpets, belong in the rigidity of their fine design to this period in French art, being woven in the time of the "Grand Monarque," nor less so the tapestries, woven in the Gobelins factories under the direction of Jans, Le Febvre, and Audran from the designs of Mignard and Antoine and Charles Coypel. The Old Testament series by these last are noble tapestries, among which I will mention "The Fainting of Esther" and "Susanna and the Elders" ("La Chaste Suzanne") both woven by Jans. Never have I seen a richer, a more splendidly regal tapestry than "The Wrath of Achilles" from the designs of Héroult and the two Coypels; it is a riot of glorious colour—worthy of the palace of a King. No less attractive, in charm of design especially, are the "Summer" and "Winter" on these walls, woven by Jans after Pierre Mignard between 1686 and 1691.

After this regal splendour, this dignified severity of Louis XIV., came the reaction under Louis XV. to a world of graceful gaiety and brilliant superficiality; which is, however, unique in its charm. We come into this new life in the Beauvais tapestries which I have already noticed, and find it yet again in "La Fausse Dulcinée" one of a series of Gobelin tapestries woven at the famous factory between 1768 and 1770 by Cozette. This tapestry is lent by the Duke of Rutland, the subject here, as in others which His Grace has also lent for exhibition, being framed in an oval—the beautiful "Sylvia set free by Amintus" (1783, by Neilson) is an even better example of this treatment—and set against a backing of warm, soft, rose colour, the famous "rose Du Barry," interwoven with garlands, Cupids, birds, and animals, the whole forming a decorative "ensemble" of surpassing beauty.

How dull, tedious, official, and uninspired appears the Napoleonic epoch, with its stiff satins and pretentious brocades, after this magic evocation of the "Ancien Régime"; I refer here to the silk brocades woven at Lyons, mostly between 1812-13, for the use of Napoleon I., the Empress Marie Louise and the Prince de Rome, lent by the Mobilier National. But these last should by no means be omitted by the visitor, nor would my notice

be complete without mentioning the famous Rhein tapestries; there are seventeen in the Cathedral and three are lent here by the Government of the Republic. The exhibition is, as I have said, unique; the crowded room speaks of its appreciation, but it should be made known through all Britain, for it is itself worth a visit to the capital.

I noted last week the reopening of the Grosvenor Galleries, but had to reserve till this issue my full notice of the work exhibited. This is what might be called a good general exhibition, containing work of interest by D. Y. Cameron, David Muirhead, Sir John Lavery, Isabel Codrington (an admirable still-life), Glyn Philpott and Philip Connard (a brilliantly handled nude), all the in the first room. In the second gallery I would pick out the "Small Yachts, racing at Cowes," by Ali Fanner, the cool grey tonality of Oliver Hall's "March," the uncompromising modern ugliness of C. J. Holme's "Seven Chimneys" and "A Sheffield Chimney," and Laura Knight's evocation of "Spring": in fact the Laura Knight paintings—including "The Dressing Room" and "The Dancing Class"—the two paintings of Venetian Scenes by Sargent, and the magnificent study "H.M.S. Vindictive at Dover," on her return in April 1918, by Muirhead Bone are among the features of the exhibition. The present exhibition may continue till Easter, and be possibly replaced then by another of general character; now that the fine galleries are under the control of Messrs. Colnaghi we may be sure that the work exhibited will keep on a high level of value and interest.

At the Alpine Club Gallery is being shown a collection of drawings and paintings by William Rothenstein, clear in colour, absolutely sincere in design, the portrait studies which include the Dean of St. Paul's, Sir Edward Elgar, H. Plunket Greene, and John Masefield, being of special interest; the carved ivories by William Simmonds are also to be noted. The Hampstead Art Gallery has an interesting exhibition of paintings and drawings by E. M. O'R Dickey, which is open till February 26. Messrs. Connell and Sons Galleries in Old Bond Street has been opened an exhibition of original etchings, including work by Eugene Bèjot ("Le Pont d'Arco, Paris"), Eyre Walker ("River Wye above Chepstow" and others), Herbert Rushbury ("Chateau Gaillard"), and a group of etchings of merit by S. Tushingham.

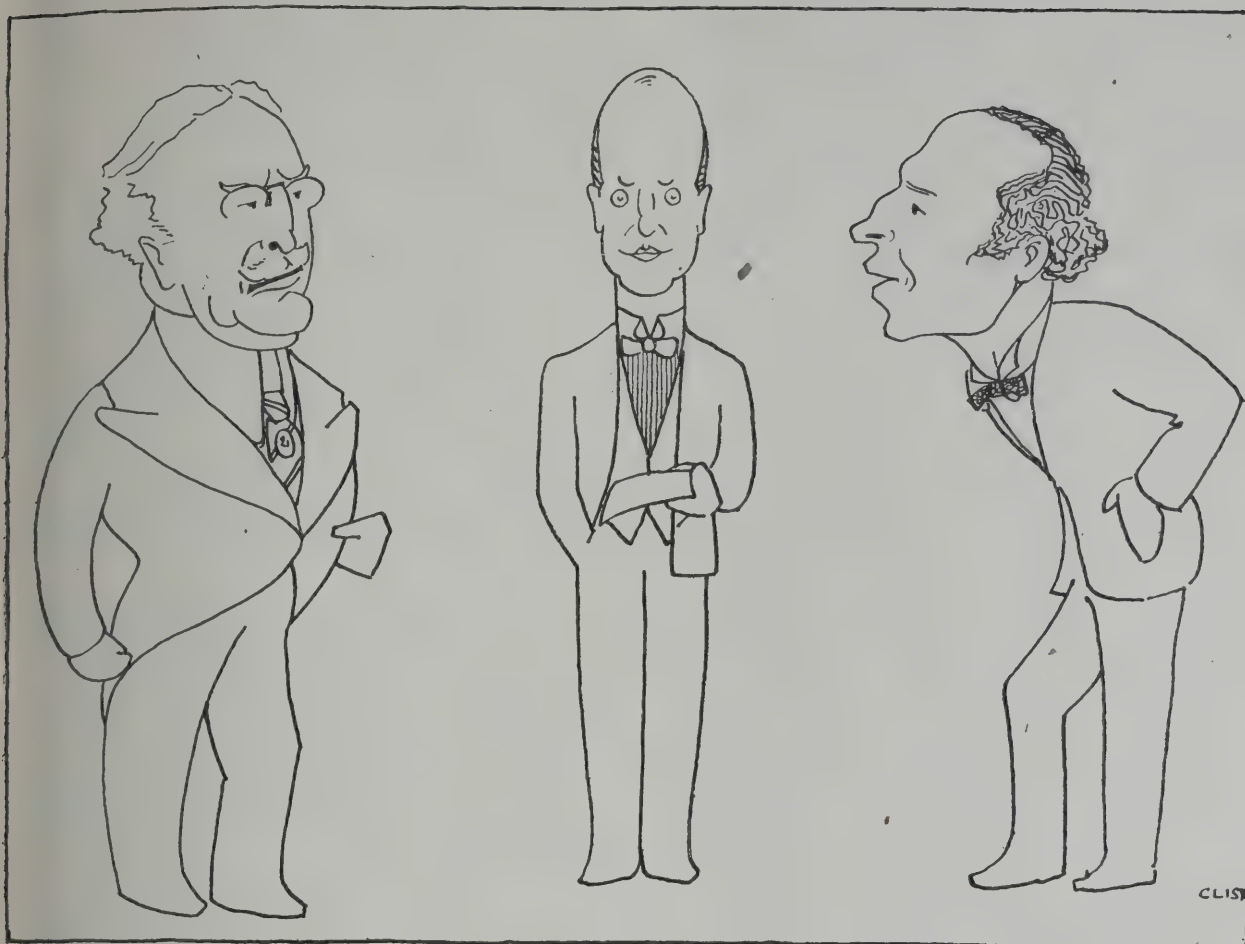
S. B.

## Art News of To-day.

THE death of Sir William Blake Richmond removes a leading figure from British art. The son of George Richmond, R.A., he had been named by his father after the poet-artist, William Blake; and it is not too much to say that his whole life was devoted with unswerving devotion to art in its highest manifestations. A student at the Royal Academy he was not satisfied with the teaching there offered, and set out for Italy to develop his powers under the direct inspiration of her mighty masters of the past, bringing back more than a hundred studies of these artists from his first tour. Young Richmond was at this time—about 1860—evidently attracted by the Pre-Raphaelites; but a second visit to Italy, that land of inspiration, brought him into the Leighton circle at Rome, where he could meet, among others, that delightful Italian landscape artist, Giovanni Costa. At this time he had in view a great processional scene of a feast to Bacchus, and on the lines of classic design were later his "Death and Sleep carrying Sarpedon" (exhibited 1877) and his "Ten Virgins" (1881). But Sir William was also a fine portrait artist; among his sitters were Gladstone, Bishop Lightfoot, Darwin, and the poet, Robert Browning, and he even once sketched Bismarck.

As we write there is considerable discussion as to who will succeed this gifted artist as Royal Academician; in this connection the name of Sir John Lavery has been mentioned, and the guess seems a likely one.





the dining room at the Architectural Association where monthly meetings are now held, was pervaded on Monday last the 21st inst., with a sense of dominating personality rather than any quality of serious discussion, an atmosphere of ideas, ideals and great enterprise.

Mr. H. Gordon Selfridge, whose subject was announced as "Architecture in Commerce," did not lecture, but spoke generally of many things, of the duty of the State of commercial men, the influence of fine work on the people, of tradition, taste, "correctness" and style-like—all great sounding phrases and words—the medium upon which the architect is reared, but coming from a commercial magnate such words carried an unusual weight.

Many valuable thoughts were brought to mind, not new ones perhaps, but which, being familiar, are often overlooked.

Mr. Selfridge apparently sees beauty in horizontality and discerns no "charm of proportion" in the skyscrapers of his country.

He spoke eloquently of the influence of fine work, and instanced the benefit derived by the many thousands of people who passed daily through the great stations of New York.

The vexed question of the "Public"—about whose education the architect so frequently complains—was seen in a different angle. The success of a great business depends, to an appreciable extent, upon the thorough and sympathetic understanding of its patrons and the "up-to-date-ness" of its organisation.

Considered action with a definite policy soon conceals the public, and the advertising experts to great enterprises have understood and made use of this, to the enlightenment of the public and betterment of their concerns. Mr. Selfridge suggested that perhaps architects might adopt a similar policy. Create a sort of professional "Calisthenes" to drum and keep on drumming to the public the truths of architecture till in time it believes them: architecture explained popularly and

with "punch"! The public may not know now, but then no one has told it!

Perhaps architects do not quite see their art in this light, but there is something to be said for the much abused "public."

The plate-glass "bogey" was, of course, in evidence. Why should this always lead to so much discussion between architects and men of business? There appears to be sometimes too great a desire for glass on the part of the shopkeeper, and too strong a craving for "columns" on the part of the architect, but it is surely a question of adjustment of values and a better understanding of conditions.

Shops are not all of one kind; and in the same way that the patrons of one store differ from those of another so the quality of the wares will differ and consequently the requirements vary. The store with the choicest wares does not confuse one with another by "piling" them behind vast stretches of glass, but by carefully framing each piece or group of pieces creates a contrast which enhances the beauty of the wares. With such a store the architect's problem is comparatively easy. But there is a much more difficult one in the case of the store where the policy is to show as much as possible to the passing crowd, where glass is all important, and the shopkeeper is not entirely to blame if the architect sometimes, against his better judgment, allows great "architectural" lumps of stone to be used over plate glass with no apparent support. Fortunately, however, this policy appears to be receiving modification in our large stores. The value of a great architectural treatment to the shopkeeper is great, it forms a suitable setting to his wares. By its distinctive character it is recognised and talked about, while it is a means of advertisement it is also an embellishment to the city.

A factor which has greatly influenced the development of stores in recent years is the necessity for much more serious consideration for the welfare of the employees. It is recognised that the success of the undertaking is largely due to the efforts of the staff and much is done to

foster their interest in the work until it becomes vital to them, until, as Mr. Selfridge said, "they would come in the morning without regret and leave at night, at least, not with a sigh of relief."

The meeting was a spirited one and Mr. Selfridge was recognised as a great enthusiast, and enthusiasts, whatever their creed, are always welcome to the Architectural Association.

L. H. B.

## Royal Institute of British Architects.

THE following are notes from the minutes of the Council meeting on February 14:—

*H.R.H. The Prince of Wales.*—The Prince of Wales has consented to accept the Hon. Fellowship of the Royal Institute, and the nomination will be submitted to the General Body in due course.

*The R.I.B.A. Library.*—The Council are considering an interesting scheme, prepared by the Literature Standing Committee, for improving the accommodation of the Royal Institute Library.

*The Conditions of Contract.*—The Council have appointed a Committee for the purpose of meeting representatives of the Institute of Builders and the National Federation of Building Trades' Employers and discussing the position with regard to conditions of contract.

*Housing in Rural Districts.*—Arrangements have been made for the appointment of a member with special experience in rural housing schemes to assist the representatives of the R.I.B.A. in negotiations with the Ministry of Health.

*R.I.B.A. Garden Party.*—A garden party will take place on Peace Day 1921 on the same lines as the successful function of last year.

*The Godwin Bursary 1921.*—The programme of the tour of Mr. C. B. Pearson (Fellow) as Godwin Bursar 1921 has been approved. Mr. Pearson will travel in the United States to study the planning and construction of hotels.

*Reinstatements.*—Three members have been reinstated under By-law 22.

## Birmingham Architectural Association.

THE eighth general meeting of the session of the Birmingham Architectural Association was held at the Queen's Hotel, Birmingham, on February 11, when the President, Mr. H. T. Buckland, F.R.I.B.A., occupied the chair.

Mr. H. B. Creswell, F.R.I.B.A., read a paper entitled "Pecksniff, the Architect, Artist, and Man."

The lecturer said he had observed that papers read before architectural societies, however valuable they might be as contributions to the science and the art, were uncommonly hard to listen to, and, with the example of the London Architectural Association before him, he had decided to choose a playful subject rather than a learned one. He had, therefore, taken the opportunity of tracing out exactly what Dickens had in mind when he drew the famous character of Pecksniff, pointing out that the novelist did not regard him as the good joke his readers found him to be, but rather piled abuse on him, seeming to resent him with a bitterness which suggested that Dickens had suffered at the hands of Seth Pecksniff in real life. On this account, the fact that the author had represented a mean scamp as being an architect was a matter for serious self-examination by members of that profession.

A very close reading was necessary to reveal what Dickens' ideas on Pecksniff's professional accessories, status, and surroundings were, such a reading would show an almost perfectly consistent picture, indicating that Dickens had not made a study of his subject, but had drawn on his observation, filling in the touches as his art required.

The lecturer displayed a plan of Pecksniff's house,

which he had reconstructed from hints scattered throughout the novel, and read extracts setting forth Pecksniff's ingenious system of capturing orphans with four or five hundred pounds, and binding them to himself as pupils with the added obligation of paying seventy pounds a year for board and lodgings in his house. This lecturer compared to the present-day system of architectural pupilage, which attained the ideal of certain architects who aspired to get people to pay for the privilege of doing work for which the architect received 6 per cent. remuneration, the pupils' advantages being in learning how his employer liked his work done.

Having dealt with Pecksniff, the architect, the lecturer went on to elaborate on Pecksniff, the artist and man, explaining that his art was the social art, by far the most important art an architect could study. Passages were read illustrating the three chief characteristics of the man, namely, his almost perfect self-control, his entire lack of humour, and his efforts to keep his appearances.

At the conclusion of the lecture Mr. Arnold Harrison proposed a vote of thanks, which was seconded by Mr. S. N. Cooke, and carried unanimously.

## Ulster Society of Architects.

THE last quarterly general meeting was an important landmark in the history of the society, being the first occasion on which the members met within their new home, in the Scottish Provident Buildings. Mr. R. M. Young, F.R.I.B.A., president, presided over a large meeting and in his opening remarks welcomed and congratulated the society on having obtained such complete and central quarters. The following were elected honorary members of the society:—The Lord Mayor of Belfast for the time being; Mr. Vincent Craig, F.R.I.B.A.; Mr. Ivor Beaumont, M.S.A.; Professor Reilly, F.R.I.B.A., Liverpool School of Architecture; Professor Richardson, F.R.I.B.A., University of London School of Architecture; Professor Abercrombie, F.R.I.B.A. Associates and members were added to the strength of the society. The report of the sub-committee regarding the incorporation of the society was received and adopted and the committee was authorised to take the necessary steps to secure this object. The report of the sub-committee on registration was considered, and after a discussion the sub-committee were unanimously instructed to proceed with the preparation of a Bill to be submitted to the new Ulster Parliament for this object. On the conclusion of the formal business the president entertained the members to tea. A vote of thanks to the president for his hospitality was proposed by Mr. Seaver and seconded by Mr. Buchanan and supported by Mr. Gilliland.

## Forthcoming Events.

*Monday, February 28.*—Royal Institute of British Architects.—Special and business meeting at 9 Conduit Street, W. Election of Royal Gold Medallist, &c. 8 P.M.

*Tuesday, March 1.*—Royal Institute of British Architects.—Extra Meeting at 9 Conduit Street, W. Paper by Mr. Jay Hambidge entitled "Further Evidence for Dynamical Symmetry in Ancient Architecture." 8 P.M.

—First Atelier of Architecture. Meeting at 28 Bedford Square, W.C., to welcome Monsieur J. P. Chaurès back to his former duties. 8 P.M.

*Wednesday, March 2.*—Royal Institute of British Architects.—Extra meeting at 9 Conduit Street, W. Paper by Major E. P. Warren, F.S.A., F.R.I.B.A., entitled "Architectural Impressions of a recent tour in Mesopotamia." 8 P.M.

—Glasgow Institute of Architects.—Meeting at 39 Inverbank Crescent. Paper by Professor John S. Phillimore, M.A., LL.D., entitled "Roman Fine Art Collectors and Connoisseurs of the First Century." 8 P.M.

—Royal Archaeological Institute.—Meeting at the Society of Antiquaries, Burlington House, Piccadilly, W. Paper by Miss M. P. Perry, entitled "The Stall-work of Bristol Cathedral Church." 4.30 P.M.



## The British School at Rome.

THE works by students which have been exhibited for the last two weeks in the Royal Academy Galleries at Burlington House are those submitted in the open examinations for the Rome Scholarships in Architecture, Sculpture, Decorative Painting, and Engraving, and the Henry Jarvis Studentship in Architecture, and with these, actually shown together in Gallery VI., have been the works executed in the final competitions for the Rome Scholarships of 1920.

By far the highest point of interest in the students' works first mentioned here is reached in the open competition for architecture, with, as its subject, a National Pantheon, to be erected in a thousand-acre lake, and approached by a causeway; but I shall not touch here these designs, which have already received attention in these columns. The sculpture is in Gallery I., and does not display any very marked originality. The actual figures in the round or in relief are very usefully accompanied by drawings and photographs, and among these I should select Alfred Rodway's nude female figure and relief of angel heads, reminiscent of certain Florentine tombs, a figure by Miss A. B. Johnston, and hands well drawn in the line method of the Slade School, Charles Dyson-Smith's processional group in relief, and a female torso in photograph, the drapery studies by David Evans, while the relief by Stuart Knox of a girl and two children at her side shows promise rather than present attainment. The same artist has an upright female figure in the centre of the room, which presents careful modelling and structure; and there is a good anatomical study in James Gardner's nude boy with upraised arms.

The next room contains the engravings and etchings, among which I enjoyed L. W. Cusden's interior of a laboratory or workshop (etching), Lilian Whitehead's etching of a girl looking out, and Miss H. E. Hutchings' etched oak trees. But a higher grade is reached in the paintings, which follow the architecture in Galleries IV. and V. I selected here Doris Zinkeisen, Eleanor Shiffner, a ceiling design by Herbert Buckley, which seemed reminiscent of Tiepolo, and a composition in wash and pencil by Rodney Burn. But what I admired most here in composition, drawing, and colour were the panels exhibited by Henry Ball in Gallery V., notably a wharf, a vintage scene, and an admirable decoration for the board-room of a navigation company. This is really work on a high level and full of promise. In the same room were Miss F. Beard's flower girls, and by Frank Skinner a group in mediæval, or perhaps rather Elizabethan costume, beside some figure studies cleverly put in.

Gallery VI., as mentioned above, contained Final Competition work, the subjects being "Hagar and Ishmael" (engraving), "The Deluge" (painting)—where I noted A. Outlaw's design—and "Sacrifice" (sculpture), which did not give a very noticeable result. The British School at Rome was founded in 1901, and remodelled and incorporated by Royal Charter in 1912, including Archæology and Letters, with Engraving and the three greater Arts. The art scholars have free studio accommodation, and the scholarships, open to British subjects under the age of thirty, are worth £250 a year, and tenable for three years.

S. B.

## Competition News.

MEMBERS of the Society of Architects are requested not to take any part in the Leigh (Lancs) and Rothesay War Memorial competitions without first ascertaining from the Society that the conditions have been approved by the Council.

ON Saturday last Major-General Sir F. H. Sykes, Controller-General of Civil Aviation, unveiled the war memorial erected at Folkestone to the men of the Machine-gun Corps (Cavalry) who fell in the war. The memorial takes the form of a granite cenotaph.



No. 3.—ROME SCHOLARSHIP COMPETITION.  
By Miss ARNRID B. JOHNSTON (Slade School).

THE Council of the Royal Institute of British Architects have arranged a Special General Meeting on Wednesday, March 2, at 8 p.m., when Major Edward P. Warren, F.R.I.B.A., will read a paper on "Mesopotamia: Architectural Impressions of a Recent Tour." The lecture will be illustrated by a number of original slides, and by drawings and photographs collected by Major Warren during his stay in Mesopotamia. There will also be an exhibition of water-colour drawings by Mr. Lionel Muirhead, who will himself explain them. Major Warren organised and commanded the great military hospital at Corfu which did so much to rehabilitate the Serbian Army. He is principal architect for Mesopotamia for the Imperial War Graves Commission.

THE Art Standing Committee of the R.I.B.A. are organising a series of visits to buildings of interest in London and the neighbourhood. The first will take place on Saturday, March 5, at 2.30 p.m., to Westminster Hall to inspect the work of repair to the roof which is being carried out by H.M. Office of Works under the direction of Sir Frank Baines, C.B.E., M.V.O. As the work is now nearing completion so good an opportunity for seeing this most interesting roof and its restoration at close quarters is not likely to arise again for this generation of architects. The number of visitors is strictly limited, and as the names of Members and Licentiates who desire to attend must be known to the authorities, application should be made to the Secretary, R.I.B.A., 9 Conduit Street, W., on or before Tuesday, March 1.



## The Architect's Assistant.

REFERRING to points raised in the letters on this subject, we would say that we believe some of our correspondents seem to overlook two cardinal facts. The first of these is that a large proportion of architects, we believe at least nineteen-twentieths of the architects in this country, are capable of carrying out such work as they do without assistance, and where they employ assistance it is as a convenience, and not a necessity because of their ignorance or incapacity. Clearly, such men who are, as we state, in receipt of means not exceeding £1,000 a year and more frequently less, will only employ assistance if they feel they can afford to do so, and it is these men who will cease to employ any assistance if they find they cannot meet the salaries demanded. If we assume, for the purpose of our argument, that they are driven to do so, the whole of the architectural assistants in the country must either seek employment among the one-twentieth of the practitioners of the country who are making larger incomes, or will seek employment in public offices. If we assume that the average assistant cannot afford to remain for long without employment, is it not reasonable to assume that, rather than remain idle, they will take the best offers they can get, whether these are in accordance with a minimum scale or not?

Mr. Hyams' contention that architects should charge higher fees so as to enable them to pay more for assistance is not a solution which will bear practical analysis; because the reason why so many architects make small incomes is not because they are insufficiently remunerated for the work they do, but because they do not get enough work to fully occupy their time. There is, in a word, too little work for the number of practising architects.

As a proof of the truth of what we say we should be correct in stating that if a man were capable and energetic he would make a very fair income even if his work consisted in nothing else than a succession of small houses. For an architect could carry out ten such houses in a year single-handed and in various localities, though we do not assert that he would not have to work hard to do it. And as long as such a statement is true of the least remunerative kind of commission, it is impossible to argue either that the average architect is insufficiently paid, or that he is absolutely dependent on assistance. We would not like it assumed that because we see the practical pitfalls in the way of the proposals made we are unsympathetic to the assistant, or desirous that assistants shall be "beaten down," for this is not the case; but, seeing as we do the dangers which hedge a policy, we are anxious to make our points clear.

We do not see how any assistant of promise can be content to remain an assistant, and feel that he should clearly regard it as an intermediate step in a career, and not as a career in itself. We have known men both here and in America who made big salaries for doing special work in very large offices, but have never regarded their lot as being enviable or desirable. Many brilliant draughtsmen and fair designers have had cause to curse their facility which has rendered it easy for them to attain what seemed ample salaries at an early age, but has led to their being stranded in blind-alley occupations from which they could not escape. Such men are at the mercy of circumstances, which others with less facility and fewer gifts escape, not because they are better men, but because they more clearly realise what it is the public are willing to pay for. But we are in agreement with the Union that one necessary step is that men should for some time be discouraged from entering a most overcrowded and difficult calling.

We hold no brief for either employer or employed, but we would ask the Assistants' Union to consider whether the following axioms are not true, and, if so, whether the conclusions stated are avoidable:—

*Axiom No. 1.—The majority of practising architects are not wholly incapable of doing what work they have themselves.*

*Axiom No. 2.—The amount of work each architect obtains is usually determined by circumstances which he is seldom able to control.*

*Axiom No. 3.—The average architect, while not seeing his way to increase his work, could do with less assistance by working harder himself.*

*Axiom No. 4.—While every building costs more than it did before the war, the average architect for that reason is likely to have less to do, which neutralises the higher fees received.*

*Axiom No. 5.—If the average architect has fewer commissions he is in a better position to do the work involved in carrying them out himself.*

*Axiom No. 6.—The high cost of living, combined with the shortage of work, hits the architect, as well as his assistant.*

*Axiom No. 7.—The public will not pay higher fees.*

It follows from these axioms that the average architect is not able to pay greatly increased salaries to assistants, and if they are demanded will do more of his work himself.

*Axiom No. 8.—The assistant, unless he has private means, needs continuous employment.*

*Axiom No. 9.—Most assistants prefer to be in offices where they see work from which they can learn what will be of subsequent use to them.*

*Axiom No. 10.—The best terms one man can obtain from another will chiefly depend on the personal equation and upon circumstances.*

*Axiom No. 11.—If the average architect cannot afford to employ assistants there will be much greater necessity to secure work from a few exceptionally fortunate men, and the market for service will be correspondingly curtailed.*

To make the architectural profession a good one for those engaged in it, it is essential that architects should be more widely employed by the public than at present. Alternatively we must make every effort to reduce the influx of new members through the schools or by pupillage. Until these objects are effected the problem for each assistant is to obtain the best terms he can for his services, and to start in independent practice as soon as he can do so. Obviously he will refuse to work for a salary which does not cover his necessary expenses, but, equally obviously, if he looks facts in the face he cannot expect one which he can be contented with as a permanency.

From the foregoing axioms it is clear that the formation of a Union demanding minimum salaries is likely to be detrimental to the assistants' interests, as it will decrease, and not increase, opportunities and openings, and while it is unnecessary for the best men, it is positively harmful to the interests of those who fall below that standard.

But if we begin by assuming that an architect must employ an assistant or several at certain stated salaries, and then reserve so much remuneration for his own share of the work, charging fees which will pay these amounts, we are forgetting that the end of the cord that is fixed is the amount the public will pay, and it is this amount, together with the amount of work which the architect can obtain, which governs the salaries he can pay. If he cannot offer enough to satisfy the assistant he must do his work for himself, but if the assistant has to choose between going to him or remaining without employment the two parties must make the best agreement they can.

The employment of assistants in public departments is another question, for, while the architect pays taxes, the departments spend the proceeds of taxation.

We are glad to hear of men in the Office of Works and other public services obtaining salaries of £700 and £800 a year, for out of the money obtained from the taxpayer it is gratifying to hear of a little trickling back into the hands of our colleagues, but these salaries are no criterion of what the private practitioner can pay, and have no bearing on the subject.



## Correspondence.

## The Assistant and Others.

To the Editor of THE ARCHITECT.

SIR,—The activities of the A. and S.A.P.U. are having at least one good result in causing quite a flutter in the various professional dovecotes and in drawing attention to matters affecting the public as well as the profession.

The correspondence in the "Edinburgh Evening News" referred to by one writer supports my contention that the public have not the least idea of "how to become an architect." They are not to blame, because, except where the way has been pointed out to them in individual cases, they are left to find out in the costly school of experience.

This is a state of things which the Society hopes in due course to remedy by affording the public some guide in this matter. In the meantime, it is my personal policy strongly to discourage the indiscriminate entry of all and sundry into the architectural profession, and to point out to enquirers that it is unfair to the individual, as well as to the profession, for anyone to be admitted who is not fitted by education, temperament, qualifications and circumstances to take up a career of this kind.

In regard to professional educational matters, there are exceptions to every rule, and with all respect to any who may differ from me, I consider that the pupilage system should be superseded by, or at any rate combined with, training at a recognised school of architecture, and that in any case the potential architect should not be bound for a term of years, but should, as it were, take a trial trip not exceeding twelve months, in order to ascertain whether or not he is likely to become fitted to discharge the duties of an architect, or whether he would be better employed in some other calling which would afford him more scope for his abilities. In the latter case he would avoid the waste of time, money and energy which he would otherwise have to expend in completing an uncongenial contract, or forfeit the premium, and would, in the meantime, have obtained an insight into a profession which would always be of some service to him in whatever other calling he adopted.

In regard to prospects, which, being interpreted by most people, means salaries, I suggest that potential architects should be taught to regard the profession of architecture as a healthy rather than as a remunerative one, as I understand it can be demonstrated that architects exist longer and in a greater state of poverty than the members of any other profession.

As assistants they find that their chiefs have their own ideas on the wages question and regard any attempt to establish a minimum as indicating also a maximum, and when assistants cross the line and become principals they find their own scale in like manner regarded by their employers, the public, as a maximum, and consider themselves lucky if they get that, and by the time they have paid the Trades Union rate of wages for assistants and their other expenses and overhead charges, the margin between that and their own minimum wage, if they get it, is so small that they are probably earning less than their chief assistants.

One correspondent states that in his district an architect who is earning £1,000 a year is looked upon as a leader in the profession.

This may account for the increase of the "band of hope" locally which he so deplors, but if this idea really prevails, it is calculated, in my opinion, to give the public an entirely erroneous idea as to the qualifications necessarily required for leadership in architecture.

In regard to the point raised by a correspondent with reference to some examinations, may I be permitted to point out that the Society's examinations, which are advertised in your columns, are held under conditions approximating to private practice, which not only renders distance no object and reduces the candidate's expenses to a minimum, but also enables him to display his qualifications to the best advantage, which in my view is an important point, and which is certainly not usually possible in a theoretical test conducted in an examination room within a limited time and under high pressure.

The Society's method may be more progressive than some people like, but it will appeal to candidates when they grasp its possibilities.

The subjects which I have traversed very briefly contain, I believe, some points of the greatest importance, not only to the persons concerned, but to the future of the profession, and I hope they will be pursued and developed by others more

capable than myself of putting them into a shape which will commend itself to all concerned. They all connote the need for unity of action in the direction of Statutory Education and Registration.—Yours, &c.,

C. McARTHUR BUTLER, *Secretary.*

The Society of Architects.

February 21, 1921.

## The Architectural Assistant.

To the Editor of THE ARCHITECT.

SIR,—I am afraid I am trespassing on your space, but I should like to be allowed to reply to a few points raised by F.R.I.B.A. in your issue of February 18. It is a little unfortunate that he has used this *nom de plume* as another gentleman, taking up quite a different line of argument on the same subject, had signed himself so the previous week.

"F.R.I.B.A." II's fears are groundless in my opinion. Exactly the same argument was raised by almost every small master tradesman when the operatives first agitated. These have secured a minimum, but despite all the prognostications of the pessimists of those days, he is still with us and flourishing. Professional offices probably will tend to become fewer and larger, I believe it is unfortunately inevitable, though it will not be the assistants who are to blame, but the present system of consolidation of capital interests. The pace is set; all others perforce must follow.

I do not believe for a minute a minimum salary will impair friendly relations between principal and assistant. A few will be cross for a time, but even they will ultimately see the reasonableness of the position and be soothed.

"F.R.I.B.A." II. defends the system of "volunteering" or "improving." Looked at merely from a sentimental point of view the system leaves little to be desired. In hard fact it is often corrupt. The young architect fresh from his articles will probably learn more in a smaller office where he has to take fuller responsibility at a fair salary; my experience of him is that he is better equipped and more resourceful in the end. He enters Sir Blankety Blank's or Mr. Blank Blankety's office as a rule either to say he has been there and obtain a testimonial of reputed higher value than his poorer colleague, or else because either of those gentlemen puts the lad or his parent or guardian under a perpetual obligation to himself for his beneficence (*sic*). In the end the improver's wage is the base from which all architectural salaries are reckoned.

I would ask another question. Why should the junior member of the profession have so to pay for his experience and not the senior? With almost nauseating repetition, but none the less true, at almost every presidential address, dinner, or address to students of the architectural societies for many years past, it has been said that the oldest architect is still a student, that every fresh job is a new experience to him. I have, however, yet to hear of Mr. Blank Blankety of world-wide fame conspiring with the promoters of a certain scheme to execute their commission for nothing, or next to nothing, because it is something in which he has not previously had experience and because the experience will be valuable to him. The cases, however, are exactly parallel.

It is in every sense better that the young professional man should have to start at once at a fair salary. It imbues him straight away with a sense of responsibility, often lost for ever by those who remain longer dependent on the efforts or means of their parents or guardians.

To conclude, we have no fear, even though we are making our beds, not those of our predecessors. Overcrowding is partly responsible for the present low state, but not altogether; it must be stamped out. Persistent undercharging and unofficial cutting, despite F.R.I.B.A., is rife and largely responsible; it must be stamped out. F.R.I.B.A. prefers to lay the whole charge to the overcrowding and states that where there were formerly at most one or two architects in his district, there are now ten, this during his own period of thirty years' practice. All this while he has paid his subscription to the R.I.B.A., and apparently what he has received is negative not positive. This body and the sister society have stood by and watched the profession go from bad to worse all these years; surely even he has something to thank us for who have touched a weak spot already. Assuredly if the older bodies will not put the profession on a sound footing, we will, because to live, we must.—Yours, &c.

CHAS. McLACHLAN, A.R.I.B.A.,

Hon. General Secretary.

Architects' and Surveyors' Assistants' Professional Union,  
33 Tothill Street, S.W. 1,

February 22, 1921.



## Corporation Profits Tax and Property Owning Companies.

To the Editor of THE ARCHITECT.

SIR,—The demands that are now being made for payment of Corporation Profits Tax show how heavily it falls upon companies whose income is derived in the main from investments in property.

Cases have arisen in which the amount of tax payable on profits assessed under the rules laid down in the Finance Act absorb a large proportion, or the whole, of the actual profits available for distribution as dividend. There is also a strong feeling that investment companies ought to be distinguished from trading companies, seeing that their opportunities for making profits are so limited.

A meeting of Metropolitan Property Companies was recently convened and a Provisional Committee was formed for the purpose of laying the facts before the Chancellor of the Exchequer with a view to obtaining exemption from the tax, or relief in the method of assessment.

The Committee base their appeal for exemption mainly on the ground that the income from rents is subject to statutory limitation under the Rent Restriction Act, and claim that they are entitled to the same consideration as has been granted to railway and other companies subject to similar restriction.

If exemption is not granted, the Committee will ask that the deduction of interest on permanent loans and leasehold redemption premiums, *inter alia*, be allowed in arriving at the assessable income, and they are confident that their case will secure that recognition which it certainly deserves.

The Committee desire the support of all companies owning property, and I shall be glad to get into communication with such as soon as possible in order that the facts and figures to be placed before the Chancellor of the Exchequer may be representative of the whole interests involved.

Yours, &c.,

M. PRICE HOLMES,

Secretary to the Committee of  
Property Owning Companies.

33 Paternoster Row,  
February 22, 1921.

## St. George's Chapel, Windsor.

To the Editor of THE ARCHITECT.

SIR,—May I be allowed to announce through your paper that on Easter Tuesday the main part of St. George's Chapel will be closed, probably for three years, in consequence of the necessity having arisen for extensive restoration.

The danger is so pressing that the architects would not guarantee that the Chapel would stand for another year without the collapse of the roof, a collapse which would

entail utter destruction of the fabric with all its artistic and historical glories.

Though the Chapel and its precincts stand within the walls of the Castle, they are an ecclesiastical freehold like any other Church property, and consequently public money cannot be spent on them. The Chapter have no funds available for the purpose. They laid the matter, therefore, before the Sovereign and Knights of the Order of the Garter, for whose use and by whose generosity the Chapel was originally founded.

It was then decided at a meeting of the Order under the Presidency of H.R.H. the Duke of Connaught: (1) That the Chapel must be saved; (2) That in view of the financial conditions of the time, as little call as possible must be made on the generosity of the public.

In pursuance of this decision it was arranged to spread the work over four years, and the Members of the Order undertook to provide the funds for the first year.

A Committee was formed, including some representative men outside the Order, especially the Provosts of Eton and King's, as representing the interest of those great foundations in the Chapel as the burial place of their founder. Of this Committee H.R.H. the Prince of Wales agreed to be Chairman.

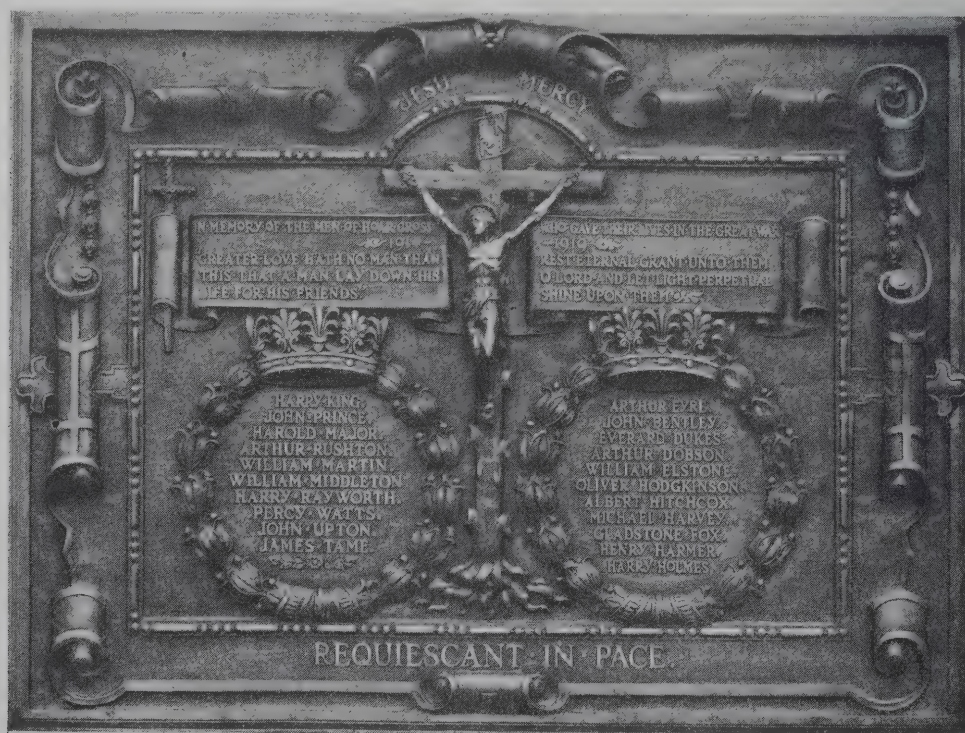
A subscription was also begun among the members of the Order, which was responded to with the generosity they have always shown towards the Chapel; a generosity all the more striking in the financial conditions of to-day. This subscription, though not yet quite complete, amounts already to £20,000.

When the first notice appeared in the papers many months ago that a restoration would be necessary, some of the firms holding the Royal Warrant united in sending me a handsome subscription, saying that they were doing so as an opportunity of giving expression to the gratitude which they, with the whole nation, felt for the great services the King and Royal family had performed for the Nation during the war; the restoration of a building so closely associated with the Royal House being a suitable occasion, in their opinion, for such an expression of feeling.

This, with one or two other subscriptions, has brought the Fund up to £25,000. As we expect to spend about £2,000 a month, the first year's work is secured. During this year we must try to raise the funds for next year, so that the work can go on without check.

During the coming month we shall be glad to give facilities to those who would like to see the Chapel before it is closed, especially to architectural and archaeological experts who wish to see what we are proposing to do. During the three years when the choir and transepts are closed, the services will be held in the nave.

The work is pure restoration, merely the replacing of decayed material. No alteration will be made in the fabric



MEMORIAL TABLET, CHURCH OF THE HOLY ANGELS, HOAR CROSS.  
Messrs. BODLEY & HARE, Architects



and no restoration included in the scheme, which is not necessary for stability. The Committee and the Chapter feel that this is an assurance due to the Nation in its present financial difficulties. There is only one apparent exception to this rule. The architect holds, as Sir Christopher Wren urged long ago, that the King's beasts must be restored on the pinnacles, as their weight is one of the counterpoises provided by the original architect to resist the thrust of the roof. The cost is not a very important item. Anyone can see their artistic value by looking at Hollars print of the Chapel before their removal.—Yours, &c.,

ALBERT BAILLIE, *Dean of Windsor.*

The Deanery, Windsor Castle,  
February, 1921.

### Architectural Students' Competitions.

To the Editor of THE ARCHITECT.

SIR,—Mr. Keen takes me to task for not bringing my views before the Institute instead of the public Press, but as my criticism largely extended to bodies over whom the Institute exercises no control, such a course would have been of little value. The Institute, although its Committees do their work exceedingly well, is not, however, blameless, and I would remind Mr. Keen that neither the Council of that body nor the members of the Board of Education generally had any say in the appointment of this last year's Prize Committees. My entire argument rests on the fact that the constitution of the jury or Committee is the essential element of successful adjudication; given the proper jury minor details will disappear of themselves. Some Committee or jury is no doubt appointed to draw up the conditions and programmes, and logically the same Committee should make the award. Where, therefore, arises the difficulty of publishing the names of the jury with the programmes? In attacking a system one does not necessarily attack individuals, and, for my part, I have always found the older members of the profession exceedingly kindhearted and generous, not least so Mr. Keen.

The present-day student, however, is quite ready to take his grumbling standing up, and much prefers a frank and critical statement of the defects of his work to a uniform measure of well-meant encouragement, and expects in return carefully studied programmes, rigorous conditions, and critical logical awards.—Yours, &c.,

ROBERT ATKINSON,

Director of Education A.A. Schools.

February 22, 1921.

### Galvanised Iron Industry.

A LARGE and well-known manufacturer is of opinion that we are on the eve of a great world demand for galvanised corrugated sheets. Many buildings in the United Kingdom must be re-sheeted without further delay, while tens of thousands of iron roofs and sheds all over the world are in a dilapidated condition. To-day's prices are pounds per ton below actual cost of production, and even should fuel, steel billets, and labour fall still further, there is no possibility of galvanised-iron prices remaining much longer at present low levels. Galvanising spelters becoming somewhat scarce, and with an improved demand from sheetmakers there will undoubtedly be a sharp advance in price.

It is generally admitted that the downward movement in prices of galvanised sheets has been overdone, but it is to be hoped that the upward reaction will not be too great. There will probably be a concerted movement on the part of the makers to steady prices.

Consumers and merchants could prevent a runaway market by anticipating their requirements now.

### Tylors (Water and Sanitary) Ltd.

As some confusion appears to exist with regard to the relationship of this company, whose offices are at Belle Isle, York Road, London, N. 7, with J. Tylor & Sons, Ltd., of New Southgate, the directors wish it made known that there is no connection of any kind between the two companies.

Tylors (Water and Sanitary) Ltd., some two years ago purchased the sanitary and waterworks fittings and meter business of J. Tylor & Sons, Ltd., and this is carried on at Belle Isle, York Road, N. 7 (a part of which premises were leased from J. Tylor & Sons, Ltd.), and also at the showrooms at 232 Tottenham Court Road, W. 1, with the same staff and under the same management as formerly conducted this old-established business.

All communications respecting the products of this company are to be addressed to Tylors (Water and Sanitary) Ltd., Belle Isle, York Road, N. 7.

### General.

THE cost of the increased plant about to be installed by the L.C.C. at the Greenwich generating station is estimated at £400,000.

It is proposed to erect a new Jewish synagogue on a site which has just been purchased from the Ecclesiastical Commissioners in Dunstan Road, Golders Green.

THE Wanstead Urban District Council has referred to a Special Committee the question of securing a supply of electricity for the district.

MR. E. GODFREY PAGE, A.R.I.B.A., having severed his connection with the Ministry of Health, has resumed his practice at 11 Gray's Inn Place, W.C.

THE North-Eastern Railway Co. are understood to be negotiating with a firm who propose to acquire 200 acres of land east of the King George Dock at Hull for the purpose of erecting buildings for a new industry.

THE Uxbridge Rural District Council are considering the question of a new sewerage and sewage-disposal scheme for Harefield parish. They have instructed W. H. Radford & Son, of Nottingham, to prepare a scheme in conjunction with their surveyor, Mr. E. E. T. Bolton.

MR. JAMES WEBSTER, A.R.I.B.A., of Vale Road, Tunbridge Wells, Kent, late of Lewisham High Road, New Cross, S.E., and of Wickham Road, Brockley, S.E., architect, who died on December 16, aged sixty-nine, left estate of the gross value of £42,685, with net personalty £18,095.

MR. JOHN SANSOM, F.R.I.B.A., well known in the West of England, died recently at Liskeard at the age of seventy-four. For some years Mr. Sansom was architect to the Duchy of Cornwall and carried out a considerable amount of work in the county. In 1913 the deceased retired owing to ill-health, and gave up his practice to Mr. H. R. Venning, a former pupil.

MESSRS. J. E. DROWER, C.B.E., A. E. Harris, R. M. Kearns, and E. C. P. Monson have been nominated as representatives of the Surveyors' Institution on the Industrial Council for the Building Industry. Mr. E. H. Selby has been appointed by the Minister of Health to serve on the Departmental Committee to investigate the high cost of building.

AT the last meeting of the Mexborough Urban Council it was reported that final sanction had been secured to the tenders of Mr. G. W. Meanley for the erection of fifty-six houses. A recommendation that the Housing Commissioner be asked to approve the letting of tenders for a further forty-four houses to Mr. Meanley was referred back to the Housing Committee.

IT is with great regret we announce the death of Mr. Charles Lynam, F.S.A., F.R.I.B.A., of Cliff Bank House, Stoke-on-Trent, at the age of ninety-two years. The funeral takes place to-day (Friday); Service at Stoke Church at 2.45 P.M. Mr. Lynam's name first appeared upon our books as a direct subscriber in the year 1869, and in the seventies and eighties numerous illustrations from his pen and pencil appeared in our pages.

THE London County Council last week discussed a recommendation by the Establishment Committee that a chief assistant housing manager at a salary of £700 a year should be appointed, together with twenty-eight minor officials, including two inquiry inspectors at £100 a year, rising to £150. Mr. Walter Reynolds said it was no use having officers to make inquiries and collect rents until the houses were built. On one of the Council's estates there are already 6,000 houses with no roofs on them. The whole question of appointments was referred back to the Committee.

MONSIEUR J. P. CHAURES' connection with the First Atelier of Architecture (the Society of Architects' Atelier) was temporarily interrupted owing to his being on service with the French Army, during which time he was severely wounded. The Beaux Arts Committee has in the meantime kept his place in the Atelier "warm," and though at one time it appeared doubtful whether his health and his professional engagements would permit of his returning, we are pleased to know that these obstacles have been overcome, and that he is on his way to England to take up his work again. A meeting of members and friends of the Atelier is to be held at 28 Bedford Square, W.C. 1, on Tuesday, March 1, at 8 P.M., to welcome Monsieur Chaures, when anyone interested in architectural education is invited to be present.



## Tests of Stone.

At a recent meeting of the Concrete Institute held at Denison House, 296 Vauxhall Bridge Road, a lecture entitled "Geology of Constructional Stone" was delivered by Mr. J. Allen Howe, B.Sc., F.G.S., M.I.M.M. In the course of his paper he said:—

The action of frost on stone is in some situations a familiar cause of disintegration, and it has been the subject of much experimental work. The position may be thus briefly summed up: Life is too short to permit of experiments under natural conditions, therefore to obtain any result at all methods far too drastic have been employed, and it is extremely doubtful whether the results obtained have been worth the expenditure of time and trouble.

The attack of frost on stone is affected by the presence of cracks, by the size of the pores and the total amount of pore space, but most of all by the content of water at the time of freezing. It has been conclusively proved that the stones above the ground-line in buildings hardly ever contain even half their maximum content of water. The pores must be over nine-tenths full if frost is to exert an effective pressure; consequently it is the fine pores—those that hold the water—which count in above-ground structures, and the coefficient of saturation is now being generally accepted as the most convenient criterion of the frost-resisting quality of a stone.

The corrosive action of strong acid vapours and weak acid solutions has often been tried upon stone. Here again the action is too drastic if the acids are strong, and is too slow if the solutions are weak.

Parker, who carried out the Canadian Government tests, has found the following procedure give results which he pronounces satisfactory. The stone is dried at 110° C., measured, and suspended in water through which a current of CO<sub>2</sub> is passed; the water is renewed every four days, and the process is continued for four weeks. At the conclusion of the test the stone is washed in distilled water and rubbed lightly over with the fingers, dried and weighed, and the loss per square inch determined.

Limestones and dolomites				
varied from ... ..	0.005	to 0.33	grams.	
Crystalline stone and dolomites varied from ...	0.0019	, 0.9	, ,	
Sandstones varied from ...	0.0018	, 0.1135	, ,	
Granites varied from ...	0.000164	, 0.0045	, ,	

A simple test employed by Hirschwald, capable of yielding useful information on the permeability and structure of the softer stones, is that of soaking equal-sized test pieces in an alcoholic stain. After drying, the stones are cut open and the character of the internal staining is observed.

The "hardness" of stone, or its resistance to mechanical wear, has been tested in a variety of ways; for example, by grinding with abrasive on a rotating disc, by boring, by the sand-blast, by scratching, and by the Brinell test.

In the case of road-metal—and the tests are also applicable to material for concrete, certain tests have been more or less standardised in America and this country. For the "attrition" test a rumbling machine of the Deval type with four cylinders is used. The charge consists of 11 lb. (5 kilos) of stone, composed as nearly as possible of fifty pieces, and the drums are given 10,000 revolutions at the rate of thirty per minute. In the wet test 1.1 gallons (5 litres) of water are put in along with the stone. The percentage loss is estimated from the amount of material removed that will pass a sieve of  $\frac{1}{16}$ -inch mesh. The French coefficient of wear is

40

% loss of weight.

Toughness is measured by the behaviour of the stone when tested in the Page impact machine. The test pieces are cylinders cut as for abrasion. The hammer of the impact machine weighs 4.4 lb. (2 kilos); for the first blow it is allowed a fall of 0.4 in. (1 cm.), and this is

increased by the same amount for each succeeding blow until the stone fails. The number of blows is the measure of "toughness."

A somewhat similar test, carried out upon Canadian stones with a view to obtaining a measure of the cost of dressing, was performed with a fixed chisel giving a definite number of blows at a fixed angle. The "chiselling factor" thereby obtained does not appear to be very reliable.

In the case of waterbound roads the "cementation" test is of interest. The method adopted by the National Physical Laboratory is to grind the stone in a standard ball mill, and from the material prepare six briquettes under a pressure of 1,880 lb. per square inch. These are dried for twenty-four hours and then broken under the Page impact machine.

We may ask ourselves how far do these tests go towards providing a reliable measure of the comparative merits of stone for use in different types of structure and in diverse situations?

As regards the purely mechanical properties, the tests when performed under standard conditions, undoubtedly yield results that may be of value in specific cases. At any rate, with these mechanical tests we have something we can measure in a straightforward way.

But the mechanical strength has often little to do with the durability of stone, and when we set ourselves to measure this quality we are faced with a series of *imponderabilia*, or at least, with a number of factors extraordinarily difficult of evaluation.

Pfaff, Hilger, Schütze, Bissinger and others have carried out long-duration weathering tests on stone, and thirty years have been reckoned none too long a period for such investigations to bear fruit. But by far the most detailed, logical, and scientific attempt to find a solution to the forecasting of weather-resistance and durability is to be found in the elaborate labours of Hirschwald. His mode of attack is theoretically sound. But the complexity of the scheme is appalling. Not only must each type of stone be measured by its own special criteria, but its position in the quality scale must be modified, qualified and adjusted by a host of subordinate character-values. There are, in fact, limits to the useful application of numerical values to properties essentially vague as those that go far to determine the differences in durability between one stone and another.

Finally one is driven to the conclusion that, while it is possible to learn much about the qualities of stone, it does not appear possible to grade stones according to their weather-resistance or durability by any reasonable short process.

In dealing with building stones it would usually suffice to supplement the microscopic examination with tension tests, and the determination of the saturation coefficient. For road-stone the attrition test answers most purposes. If we had a complete set of tests of our British building stones they would no doubt be consulted on occasion, just as Lovegrove's road-stone tests have supplied a demand, though they are incomplete; for the present we have to get on as well as we can without the data that are now ready to the hand of engineers and architects in many other States.

AFTER being in the service of the Liverpool Corporation for nearly forty years, Mr. J. T. Alexander, city building surveyor, is retiring at the end of March. Mr. Alexander was for a time in the city engineer's department, after which he became chief assistant to Mr. W. Goldstraw, whom he succeeded as building surveyor about ten years ago.

OWING to the difficulty experienced in getting money and to the general extraordinary trade conditions prevailing, it is proposed that Dundee's scheme for erecting women's dwellings should be curtailed from 6,000 to 1,400 houses. The modified scheme will comprise 852 flat houses at Logie, Hospital and Stirling Parks, and Taybank, and 626 cottages. Up to the present about £250,000 have been spent, and to complete the flat houses a further sum of £700,000 will be required. The cottage scheme will cost close on £1,000,000.



**CONCRETE BLOCKS "KING" PLASTER SLABS**

**WALLS PARTITIONS ROOFS**

**FIBROUS PLASTER CEILING SLABS**

*Ferro-Concrete and Glass Constructions*

**"FERRO GLASS" PAVEMENT LIGHTS**

**"KING" CONCRETE GLAZING BARS**

**A. KING & Co.**

181, QUEEN VICTORIA ST., LONDON, E.C., and  
BRITANNIA BUILDINGS, LEEDS.

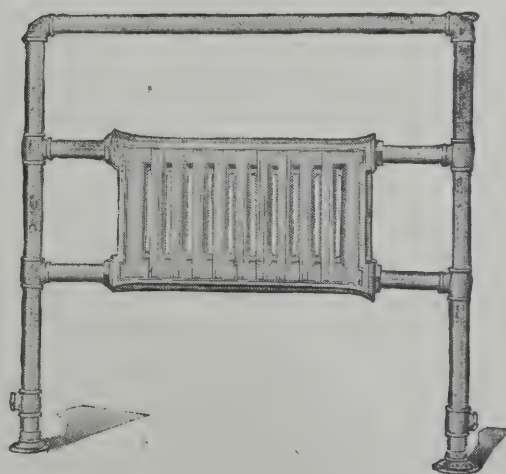
Tel: City 2213 and Cent. 773, and Leeds 22712.

## Ideal Towel Rails.

Ideal Towel Rails form a very advantageous and convenient addition to a Hot Water Supply apparatus. They are now available in a large variety of patterns and sizes or can be made to specification in a few days.

Ideal Towel Rails are regularly manufactured from  $\frac{3}{4}$  in. to  $1\frac{1}{2}$  in. solid drawn brass tubes—polished or nickel-plated.

The No. 10 Towel Rail illustrated contains 11 sq. feet of heating surface—sufficient to warm a Bath Room of moderate size—can be supplied in the plated finish or plain for enamelling.



*Write for further particulars.*

**NATIONAL RADIATOR COMPANY**

LIMITED.

Offices, Showrooms & Works: HULL, Yorks.  
Telephone: Central 4220. Telegrams: "Radiators, Hull."

London Showrooms: 439 & 441 Oxford Street, W.1.  
Telephone: Mayfair 2153. Telegrams: "Liableness, London."



## British Industries Fair, Birmingham.

THE energy with which the Board of Trade now pursue their policy of fostering the industries of this country rouses hopes that it is not too late to atone for long neglect. About past mistakes it would be easy but thankless to speak. The fact of a conversion in official circles is the important point. Doubtless the departments concerned are sufficiently alive to their old shortcomings. British industry is no longer to be treated like the naughty child of the family—put into a dark corner, as it were, for wholesome discipline. To-day those in authority carefully coax it to show itself at its best before the world, so as to win good opinions. An instance of this new method of encouragement is to be seen in the two Fairs now being held under the auspices of the Department of Overseas Trade simultaneously in London and Birmingham, and the one which will open at Glasgow next week.

Since its inception in 1915 the record of the British Industries Fair has been one of continuous growth in scope, utility and reputation. The first was organised to promote the manufacture in the United Kingdom of articles heretofore made in enemy countries. From the beginning the aim has been to confine this business exhibition to business men. The idly-curious visitor is not wanted; for, however intelligent he or she may be, there is not time for such people. The Exhibition is arranged and grouped for the convenience of specially invited inspecting buyers from home and abroad. Trades are so split up into sections as to facilitate to the utmost a rapid and thorough survey of British production in any given line. Each of the three Fairs deals with a distinct branch of industry. That at the Castle Bromwich aerodrome, near Birmingham, is the one which most closely concerns the building trade. It was opened on the 21st inst., and will close on March 4. Almost every branch of the British metal industry is there represented, with the important exception of steel construction. The present Fair contains about the same number of exhibitors, some 600, as the one held at Birmingham last year; but the floor space is considerably larger, and the lay-out is improved. It has been again organised by the Board of Trade concurrently with the Birmingham Municipality and Chamber of Commerce. There are five great groups, divided into fifteen separate sections, each section being so placed in the Fair Buildings that buyers can view the various displays of one class of goods without other articles distracting their attention.

Group 1, Class A, Section I, includes chandeliers, candelabra, gas fittings, electric light fittings and accessories, table and standard lamps, &c. There are many fine displays. On Stand No. 20, occupied by Messrs. J. H. Tucker & Co., Ltd., of Tyseley, Birmingham, is a very comprehensive range of electric lighting and power accessories, Ironclad gear, switchgear and switchboard. The latter exhibits consist of a complete accumulator switchboard for use in conjunction with batteries and lighting sets for country house and similar plants. These switchboards are standardised for 25, 50, 75, 100 and 150 volts, and for 15-, 25-, 50-, 75- and 100-amps capacity. As pioneers of the Tumbler Switch, the firm have for over twenty years specialised in the manufacture of "Tucker" Switches. Tumbler switches in a variety of designs, patterns and finishes for sunk and surface work are shown. General lighting accessories, such as lampholders, cutouts, ceiling roses, wall sockets and plugs, and similar products are also on Stand 20.

In the same category are such Stands as those of Birmingham firms like Messrs. Donovan & Co., David Shanks & Co., Ltd., Berry's Electric, Ltd., British Brass Fittings, Ltd., Ingram & Kemp, Ltd., Player & Mitchell, Sperry & Co., Ltd., Best & Lloyd, Ltd., Etna Lighting & Heating Co., Ltd., Simplex Conduits, Ltd., M. Howlett & Co., Ltd., Samuel Heath & Sons, Ltd., May & Padmore, Ltd., John A. Harry Hunt, and the Austin Motor Co., Ltd. (the Austin "Autoplant" electric light generating set).

The "British R.B." electric light and small power-plant, made by Rendle, Blanchard & Co., Ltd., of 5 Victoria Street, London, S.W. 1, is shown on Stand 62 by Messrs. Balmford & Salt, of Birmingham. The outstanding features of this plant are low initial cost (£159 10s.), simplicity and absolute reliability (guaranteed for twelve months). Petrol or paraffin may be used; in the latter case there is an additional charge of £6. The General Electric Co., Ltd., have such an elaborate system of overseas representatives and subsidiary companies that they may be excused making a big effort at this Fair. Two specialities

on Stand 81 are their "Klersite" set for lorry lighting and Witton-Kramer portable electric tools.

F. & C. Osler, Ltd., of Birmingham, and 100 Oxford Street, W., are justly proud of their "period" electric fittings. On Stand 26 they have brought together a convincing range of samples which includes many novel ideas. The hand of the craftsman is manifest on everything that is shown. There are many firms other than those in Birmingham who have taken space to display this class of goods. Among them we noticed Messrs. Faraday & Son, Ltd., 146 Wardour Street, W.; Edward J. Shaw & Co., Walsall; the B.E. Co. (of London and Birmingham) Ltd., 57 Upper Thames Street, E.C.; the Thermal Syndicate, Ltd., Walsall; end-on-Tyne; Mark Webber, Ltd., Guildford; Fuller United Electric Works, Ltd., Idlesleigh House, Westminster; Gath Electrical Engineering Co., Halifax; G. & Co., Ltd., Leicester; Electrical Conduits, Ltd., Walsall; The Telephone Manufacturing Co. (1920), Ltd., Walsall; Dulwich.

Group 1, Class A, Section II, includes cooking and heating stoves, grates, ranges, builders' ironmongery, architectural and ornamental metal-work, including gates, fences, &c., brassfoundry, sanitary apparatus and appliances, and fittings. Among the sixty-odd stands included in this important section there are many novelties. It is pleasant to see a firm like Sidney Flavel & Co., Ltd., of Leamington, which was established in 1777, keeping well abreast of the times. On Stands 53 and 54 they make an impressive show with their kitcheners, portable stoves, interiors, man registers, gas grates and gas cookers. Their most recent product is "Flavel's 1921 Parlour-Oven Grate", which, after some months of experiment and test, is shown for the first time. It is unquestionably good to look at, and it seems designed on thoroughly practical lines. The conversion from a barless open fire grate to a cooking grate is made by one movement. The overall sizes are 36 inches wide by 14 inches deep by 38 inches high. Another combination grate is the "Triplex" shown on Stand 79 by Triplex Foundry, Ltd., Great Bridge, Staffs. The "Triplex" grate, having been on the market for about 15 years, was in a favourable position to get an early hold in housing schemes. There are six different patterns, but the "Triplex" ovens are unreservedly guaranteed to bake a roast to perfection, and the powerful bath boiler to give hot baths per hour, all from a scuttle full of small coal (half slack). This guarantee can be given because the cast iron flues are all scientifically formed before leaving the works. The fire is lined with best thick Stourbridge fire bricks, and when the grate is at work the smoke given off from the fresh coal is drawn down through the hot fire and all burnt—this not only adds considerably to the heat produced, but it also keeps the flues much cleaner. "Triplex" grates do not require cleaning with black lead like kitchen ranges. Furniture cream only should be used.

Falkirk Iron Co., Ltd., Falkirk, have an imposing exhibit on Stand 90, which comprises a large selection of high-class interiors and dog grates in various designs. Their choice of mantel register grates, ranges, and portable stoves is calculated to meet every taste. A special feature is made of "Falco" electric cookers.

Another type of combination grate is the "Foresight" made and shown on Stand 91 by Samuel Smith & Son, Ltd., Smethwick; Type 3A is specially designed for housing schemes, and was shown at the Ideal Homes Exhibition of the Ministry of Housing. It was awarded a bronze medal last year at the Health Exhibition of the Royal Sanitary Institute. Other things on this stand are "Trafalgar" and "Progress" cooking ranges, stoves, mantel registers, &c. The Lawson Manufacturing Co., 323 Caledonian Road, N., show the Lawson odourless gas heater which is distinctive in appearance and, judging by the report of Mr. Arthur H. Barker, B.A., B.Sc., is scientific in design. Jones Attwood, Ltd., Stourbridge, include among their specialities the "Domesticatum" boiler and the "Cultivatum" greenhouses. Other firms which fall into Section 2 include Premier Electric Heaters, Ltd., of Birmingham; Union Brassfounders & Engineers, Ltd., Manchester (the "Union" exhibit); A. Edmonds & Co., Ltd. (shop fittings); Jos Walker (Birmingham), Ltd. (brassfoundry work); William Soutter & Sons, Ltd. (Soutterware metal furnishings for house); G. A. Harvey & Co. (London), Ltd., and Imperial Contractors' Machinery Co., of Birmingham (the W. Laufer Canadian-made concrete machinery). On Stand 100 Tonks (Birmingham), Ltd., have brought together



# REDPATH BROWN & CO., LTD. CONSTRUCTIONAL ENGINEERS

## WORKS AND STOCKYARDS

LONDON  
Riverside Works.  
East Greenwich, S.E.

MANCHESTER.  
Trafford Park.

EDINBURGH.  
St. Andrew Steel Works.

GLASGOW.  
Pinkston.  
Office 19, Waterloo St.

BIRMINGHAM  
Office 47, Temple Row.

NEWCASTLE-ON-TYNE.  
Milburn House

London City Office.  
3, LAURENCE POUNTNEY HILL.  
E.C.4.





imposing selection of their products as manufacturers of every description of bronze, brass, and copper work.

Messrs. Parker, Winder & Achurch, Ltd., Broad Street, Birmingham, show the "Empire" concrete mixer, which makes three cubic feet per batch of concrete in from one to three minutes, and the "Australia" block-making machine—the latter has already been described in these columns. Another contrivance shown on Stand 100 is the "Utility" electric floor-polishing machine. It scours and waxes 2,000 square feet of floor-space in an hour at small cost for electric current, giving a brilliant, hard and lasting finish to lino or wood floors. It is self-propelling, ball-bearing and built entirely of metal. It is not a vacuum cleaner. In addition to the above, Messrs. Parker, Winder & Achurch show the "Empire" electric light and power plant.

The "Interlock" cellular brick system of construction is the only thing of its kind at the Castle Bromwich Aerodrome. Mr. George E. Clare, M.S.A., of Harrow, its patentee, claims that it is impervious, inter-locking, inexpensive, and imperishable. Examples of "Interlock" houses may be seen at Woolwich, Edgware, Hendon, Wembley, Harrow, Hindhead, Croydon, Leicester, Hleanor, Rotherham, Northwood, Eastcote, Acton, Lancing, and other places. We understand that the economy in freightage, foundations, labour, mortar, plastering, chimneys, scaffolding, time and expenses effects a total saving of about £100 to £150 per house. The common blocks supplied are 12 inches long and 9 inches high (twelve to the yard super), 6 inches thick for outer and party walls, 4½ inches for out-buildings and main weight carrying partitions, and 3 inches thick for ordinary partitions. All are laid with cavities horizontal. Blocks are supplied with smooth faces or scored for plaster key and with half blocks for bonding, and special corner blocks for forming angle quoins, also party wall blocks, with square edges as corner blocks, laid flat when 9-inch party walls are used, but 6-inch party walls are considered sufficient.

The Stand (No. 533) of Messrs. Accles & Pollock, Ltd., of Oldbury, Birmingham, is entirely of tubular and sheet steel, and was constructed at their Paddock Works. The exhibit consists of a large variety of weldless steel tubing of various diameters and gauges, straight and bent, or manufactured into various components for cycle, motor-cycle, and motor-car construction. Of particular interest to our readers is the galvanised steel tubular flush pipe for w.c.'s with inlet and waste pipes. They are made to standard measurements, and consequently are accommodated by the cistern and pan fittings without any work being necessary. Length can be varied according to the height of the cistern, or a telescopic pattern meets all requirements with regard to length, being made in two parts, the top or inner portion telescoping into the lower or outer portion, thus allowing contraction or extension of the overall length. There are no expensive joints to be made as with lead piping, and a great saving is shown in the cost of fixing.

Mr. George Blay, New Malden, Surrey, has brought up some Government huts, steel tents, iron sheets, tanks, corrugated iron sheets, and other surplus stock, which are being offered at low prices.

Group 1, Class B, Section I, is the largest individual section. It includes furniture of metal for house, shop, garden and camp. Evered & Co., Ltd., Smethwick, have made Stand 376 a really imposing one; it shows much, and it shows it well. Conspicuous are the two elegant metal bedsteads in the centre. There is much else to attract admiration, including gas and electric fittings, brass-foundry work, hearth furniture, water fittings, &c. Frederick Braby & Co., Ltd. have practically devoted Stand 290 to their aluminium cooking utensils: but we noticed specimens of their aluminium non-slip stair nosings, which are made in lengths up to 6 feet in pyramid, diamond, and fluted patterns; also an aluminium roofing sheet for sub-tropical mining and up-country districts. Other exhibitors in Class B, Section I, are Archibald Kenrick & Sons, Ltd., Thomas Pemberton & Sons, Ltd., and F. & G. Smart.

Group 1, Class B, Section II, is labelled with the comprehensive description "general hardware," and includes safes. The Chatwood Safe Co., Ltd., bankers' engineers, Bolton, make a good show on Stand 272. They manufacture safes of many degrees of security, of which the highest is their "Diamond" quality. Other sample safes shown include the "Standard Treasury" for branch banks and general commercial safes. The firm refuse to make flimsy safes, the lightest are of ½-inch solid steel. That fact is one explanation of the reputation built up by the company during the past sixty years. Another firm of safe manufacturers is

W. E. Braen & Co., Ladywood. Thomas Piggott & Co., Ltd., have had their works in Birmingham for nearly a hundred years; on Stand 258 they show their pressed-steel tanks, which are built up of plates either 4 feet or 2 feet square; also riveted and welded pipes, &c.

Group 2, Section IV, includes scales, balances, weighing instruments, measuring instruments and appliances. A very noteworthy Stand is No. 456, where W. & T. Avery, Ltd., Soho Foundry, Birmingham, have brought together some of their specialities. Of special importance to the building industry is the manufacture of reliable testing machinery. Messrs. Avery's exhibits include an impact tester, their latest 30-ton vertical testing machine, a machine for testing piston rings, a machine for testing hardness of metals, and a spring testing machine. The majority of these will be in operation during the whole time of the Fair. Other specialities include weighing machinery, counting machinery, and small scales.

On the stand of Haighs (Oldham), Ltd., we were particularly interested in a machine that is capable of broaching round, square, hexagon, key-wayed, or any other shape of hole with absolute uniformity and cleanness of finish, up to its maximum capacity in steel or other metals. At the Globe Ironworks, Oldham, this firm produce a widely known range of machine tools—of these a selection may be seen in operation on Stand 449. Other exhibitors in this Group II, Section 5—machine tools—are Charles Willetts, Jun., George Salter & Co., Ltd., and John Slater, Ltd.

Messrs. Siemens Brothers & Co., Ltd., feature their "Autophone" system of automatic private telephones. The exchange switchboard is demonstrated in actual working operation for communication between various stands. The system has been already installed in many large concerns. By its means inter-communication can be obtained both at night, as well as during the day, without the presence of an operator or attendant in the room or building in which the automatic exchange is installed. Other exhibits include signalling apparatus, cables and wires, and electric appliances generally.

Group IV, Section 1, includes paints, colours, varnishes, and painters' requisites. Among the exhibitors are Naylor Brothers (London), Ltd., who have been established 120 years and have a new 35-acre factory at Slough; the Frederick Crane Chemical Co., Ltd., Bordesley Green; the Airostyle and Lithos, Ltd., 35 St. Bride Street, E.C., whose spraying system has been well tried; Gittings, Hill & Boothby, Ltd., of the Tower Varnish Works, Birmingham; Arthur Holden & Sons, Ltd., Birmingham; Aerograph Co., Ltd., 43 Holborn Viaduct, E.C. (a complete working spraying equipment), and the Midland Fan Co., Ltd., Birmingham (spraying plant).

The Rawlplug Co., Ltd., of Lenthall Place, Gloucester Road, S.W., are showing on Stand 52 their patent fibre plugs which automatically expand when a screw is driven into them and give a firm hold. There can be no two opinions as to the practical value of this patent.

Nobel Industries, Ltd., are showing hardware products on Stand 250 in Building B; their ammunition section and bicycle sections are respectively on Stands 587 and 537 in Building A. On Stand No. 590, in Building A, Nobel Industries, Ltd., have on view a varied range of "Necol" products comprising varnishes, lacquers, enamels, and cements, and "cold" lacquers for brushing, dipping, or spraying on brass, silver, and other metal ware, as well as leather products, celluloid enamels in all colours, black enamels, matt to glossy; bronzing liquid; electric-lamp lacquers; textile stain; household cement in collapsible tubes; collodion cotton and nitro-cellulose solutions for all industrial purposes. Gold, bronze, and aluminium powders of every colour and grade for printing, lithographic, lining, decorative, and spraying purposes made at the factories of Metal Powders, Ltd., are also on view there.

THE NORWICH TOWN COUNCIL have decided to embark on a housing scheme, to cost £100,000, and to employ direct labour in preference to private contracts. The cost per house, for two blocks, will be £877, including paths and drains, against the lowest tender of a private contractor of £1,000 per house.

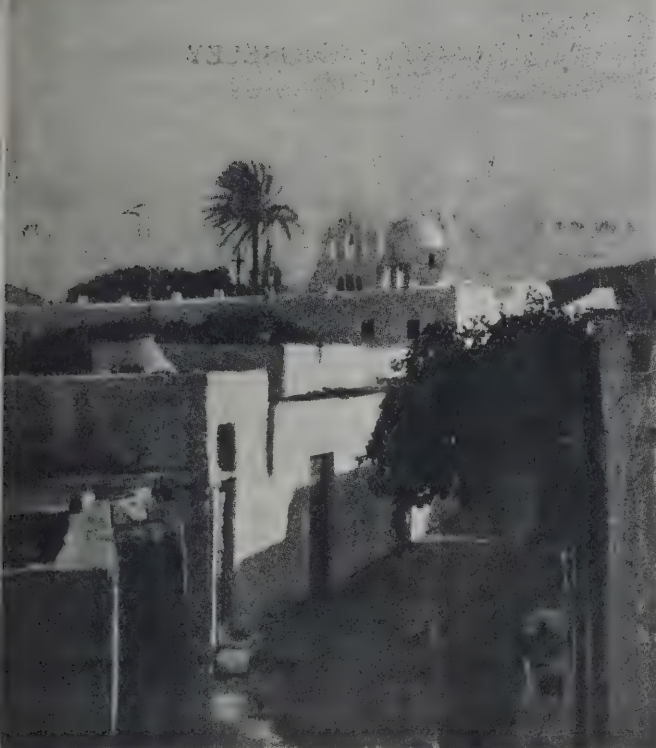
BOOTLE TOWN COUNCIL, at a special meeting on the 14th inst., decided on the recommendation of the Housing and Town-planning Committee to accept the amended tender of Messrs. R. Costain & Sons, Blundellsands, amounting to £205,440 for the erection of 212 concrete houses in Orrell, on condition that the contractors shall consult the borough engineer and the borough treasurer prior to the purchase by the former of the principal materials. A similar scheme was rejected by the Council at their last monthly meeting, which recommended the building of fifty houses.



## CONTENTS.

"The Church of Our Lady of the Hundred Gates at Paros" (Illustrated) . . . . .	PAGE 151	New Books . . . . .	PAGE 157
Illustrations: Notes and Comments . . . . .	153	Capri and Amalfi.—III. (Illustrated) . . . . .	159
The Society of Architects and the Building Exhibition . . . . .	154	Gift of a Staircase to the Nation . . . . .	161
London Art Galleries: Art News of To-day . . . . .	155	"The Architect" Fifty Years Ago . . . . .	161
Edinburgh Architectural Association . . . . .	156	Forthcoming Events . . . . .	161
Birmingham Architectural Association . . . . .	156	Correspondence . . . . .	162
Possibilities in Brickwork . . . . .	156	The Modern System of Hot Water Supply . . . . .	166

## "The Church of Our Lady of the Hundred Gates at Paros." \*



THE CHURCH OF OUR LADY OF THE HUNDRED GATES AT PAROS. (From the "Byzantine Research Funds Publication.")

UNDER the above title a very complete monograph has been issued describing and illustrating what is recognised as the finest collection of churches in the Cyclades. Mr. H. H. Jewell, a gold medallist and travelling student in architecture of the Royal Academy, who had gone to Athens in pursuit of his studies, visited Paros at the suggestion of the Committee of the Fund for the purpose of making studies of the group of churches. The Committee undertook to find funds for the publication of the results of the investigation, and also enabled Mr. Jewell to make a second visit to the island to complete his work, while the late Mr. Hasluck, while Assistant Director of the British School at Athens, agreed to write chapters on the history of the churches and their inscriptions. The volume contains 78 pages, fourteen large plates of measured drawings, and fifty-six illustrations in the text. It is somewhat curious to note that among these no large general views of the church are included, the two small illustrations we reproduce being the only general views given of the subject treated of in the monograph. We suppose this is due to the fact that the work is primarily one of archaeological and historical research, but it is a marked defect. Nothing should be left undone in

the description of a building or its illustrations to render it clear and intelligible as a whole; and we too frequently find in the description and illustration of subjects that investigators have concentrated their attention so exclusively on detail that they are unable to make themselves clear and intelligible and to carry out what should be their primary object—to link up the unknown or forgotten parts of a chain into their place in the sequence of historical and artistic knowledge.

The Church of Our Lady of the Hundred Gates, by common consent acknowledged as the finest in the Cyclades, was, until the comparatively recent introduction of the Tenos pilgrimage, their most widely known religious centre.

Legend points to St. Helena as the first founder of the church, the Empress having stopped at Paros on her way to Jerusalem. She found a small church there, and in it was vouchsafed a vision of the Finding of the Cross. The Empress vowed if her pilgrimage was successful to build a new church on the site; but, her intention being frustrated by death, her wishes were carried out by Justinian, and legend says the builder of Justinian's church was the architect of Santa Sophia at Constantinople. Of authentic history there is little; but Niketas, writing in A.D. 902, says that a very remarkable church existed on the island. When Constantinople was captured by the Franks in 1204 Paros, with the rest of the Cyclades, fell to them until its conquest by the Turks in 1537.

Paros suffered from an earthquake in 1508, and was ravaged and almost depopulated by a Turkish admiral in 1537. Subsequently its waters were made the headquarters for the Venetian fleet, but the Venetians were looked upon by the inhabitants as worse enemies than the Turks. It is asserted that Peter Mavrogeni, a member of a Cretan family which had emigrated to Paros, restored the church



THE CHURCH OF OUR LADY OF THE HUNDRED GATES.  
THE CLOISTER OF FORECOURT.  
(From the "Byzantine Research Funds Publication.")

\* "The Church of Our Lady of the Hundred Gates (Panagia Hekatontapylani) at Paros." Byzantine Research and Publication Fund (in association with the British School at Athens). By H. H. Jewell and F. W. Hasluck, M.A. Published on behalf of the Fund by Macmillan & Co., Ltd., St. Martin Street, London. 50s. net.





THE CHURCH OF OUR LADY OF THE HUNDRED GATES AT PAROS.  
(From the "Byzantine Research Funds Publication.")

in the first half of the eighteenth century. Such are, in brief, the known facts regarding the churches.

The churches are surrounded by a high wall with watch-towers, evidently intended as a protection from the attacks of pirates. The forecourt and the storied buildings round it are of mediæval and modern date. The main church—dedicated to the Virgin—was placed in such a manner that the older Church of St. Nicholas was incorporated in the newer structure. The material of which the churches are built is local white marble; a good deal of which has been adapted from classical buildings and re-erected.

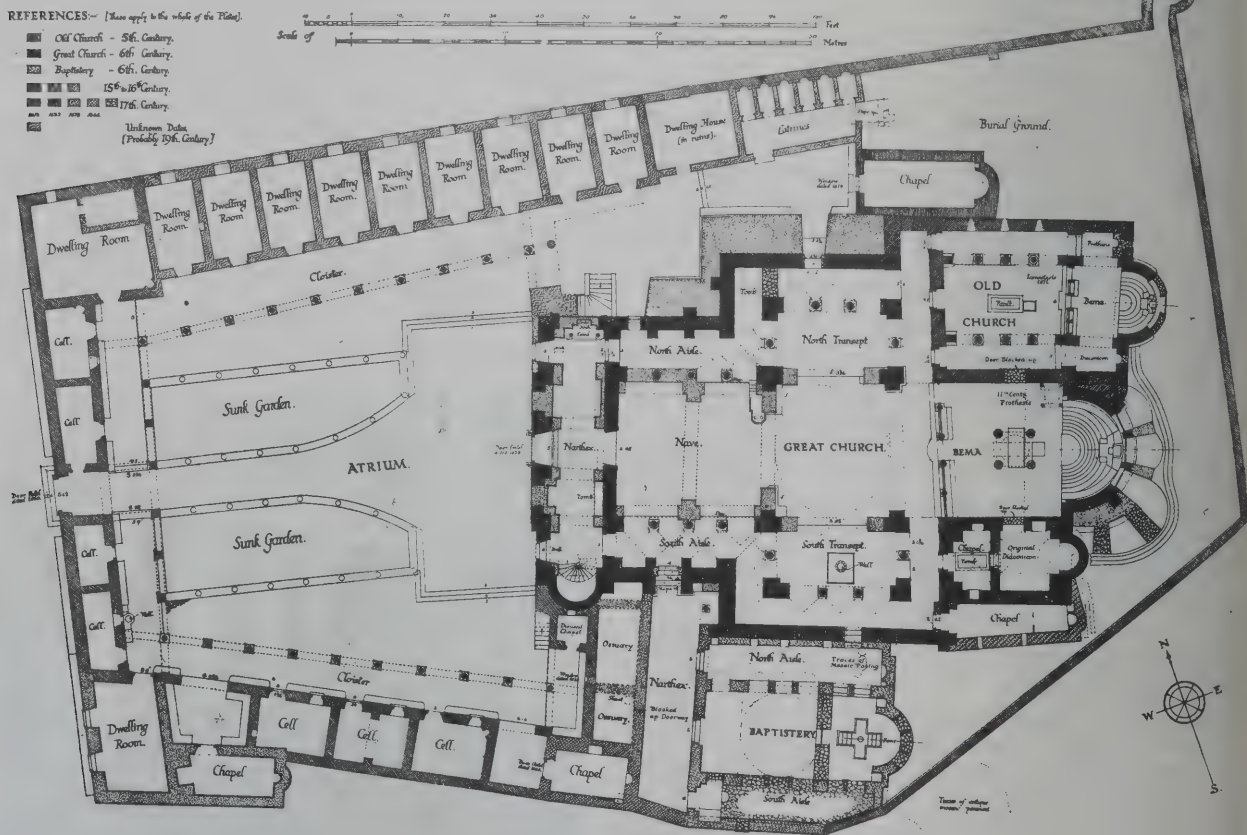
In the great church marble has been used for some of the shafts of the columns and capitals, which were probably imported in their finished state, judging by the quality of workmanship; the exteriors have been covered by successive coats of white wash, now more than an inch thick.

The group of churches is one of great beauty and interest, as is indicated by the plan and views we reproduce and much of the detail shown is very suggestive, for the Byzantine type of church holds a foremost place among forms which prove that architectural beauty is independent of detail and can be produced by the skilful manipulation of simple forms.

While we should feel that the adoption of purely Byzantine forms would be generally out of place in our buildings here, we believe that a freer rendering of Classical and Renaissance forms, inspired by Byzantine examples, might well improve and revivify much of our modern design, for in the work illustrated in this monograph there is evidence that, crude and simple as much of the work is, it is inspired by a sense of form and proportion which showed that the old Greek spirit still inspired the work of less civilised ages.

REFERENCES:— [These apply to the whole of the Plan.]

- Old Church - 5th Century.
- Great Church - 6th Century.
- Baptistry - 6th Century.
- 156, 166 Century.
- 17th Century.
- Unknown Date (Probably 18th Century).

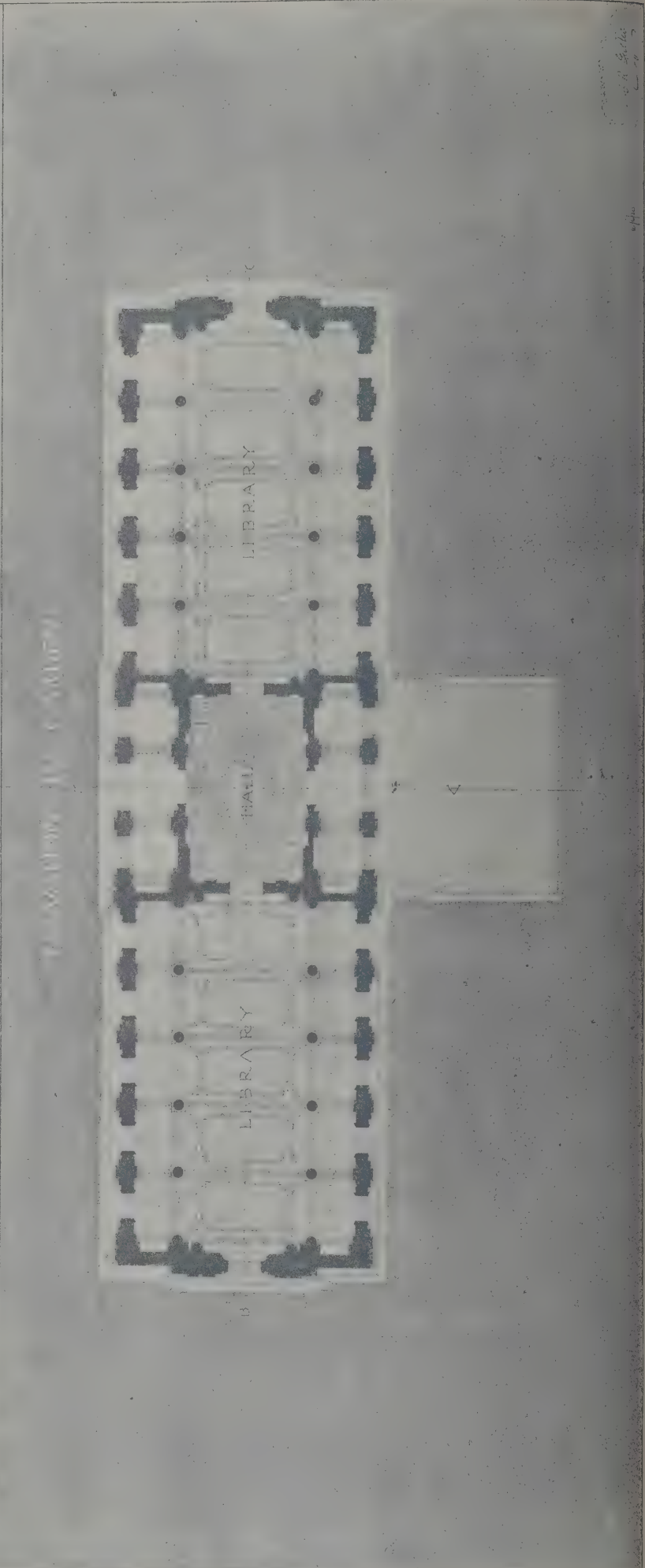
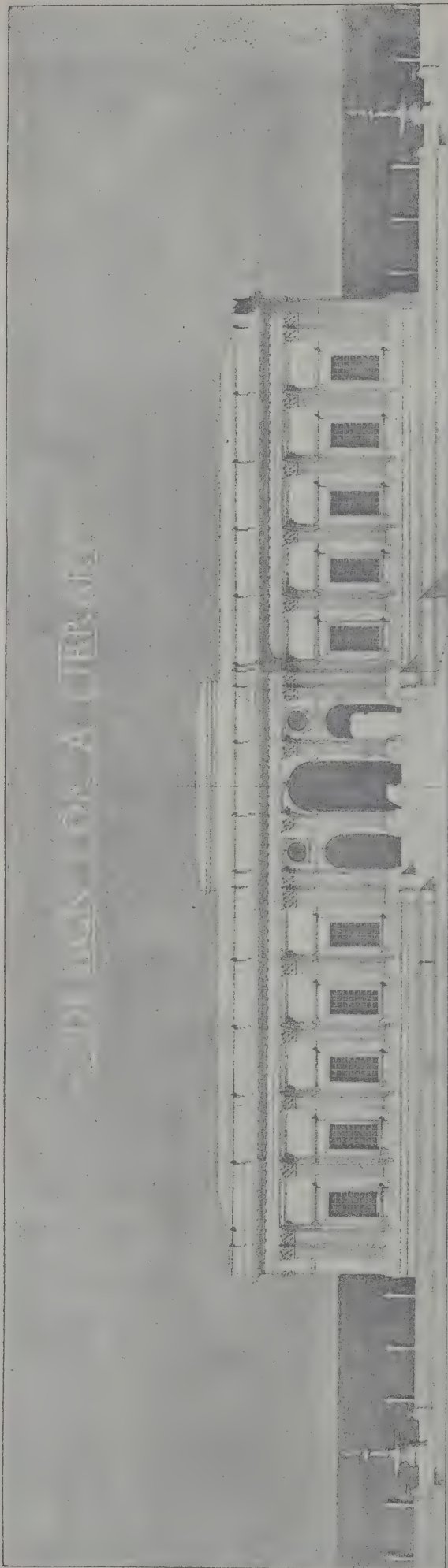


ROADWAY.  
A PLAN OF THE CHURCHES  
AS EXISTING A.D. 1910.

THE CHURCH OF OUR LADY OF THE HUNDRED GATES AT PAROS.  
(From the "Byzantine Research Funds Publication.")

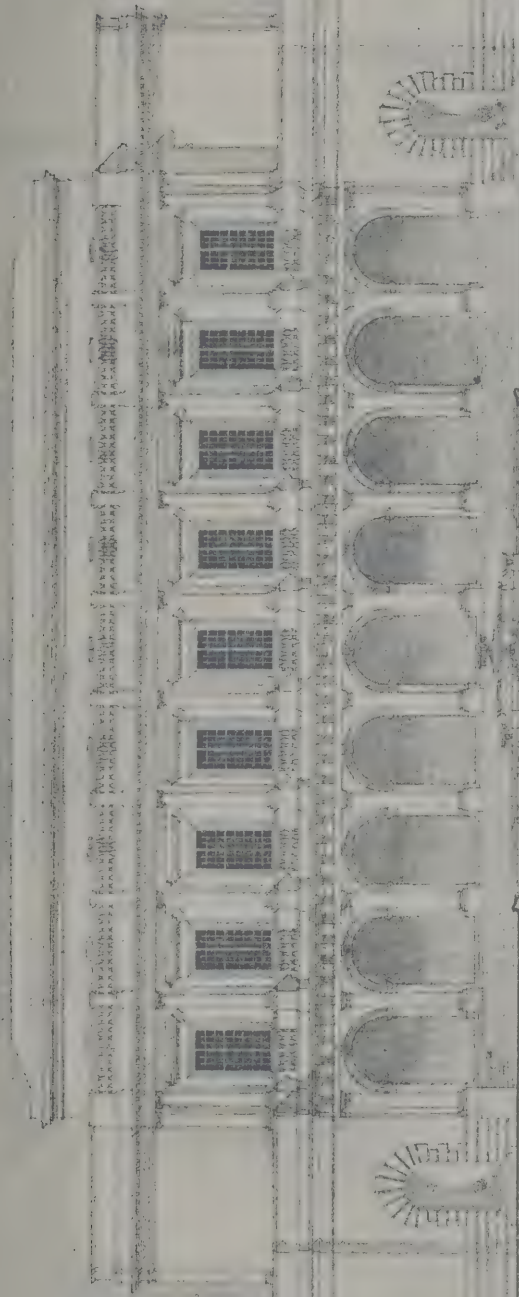




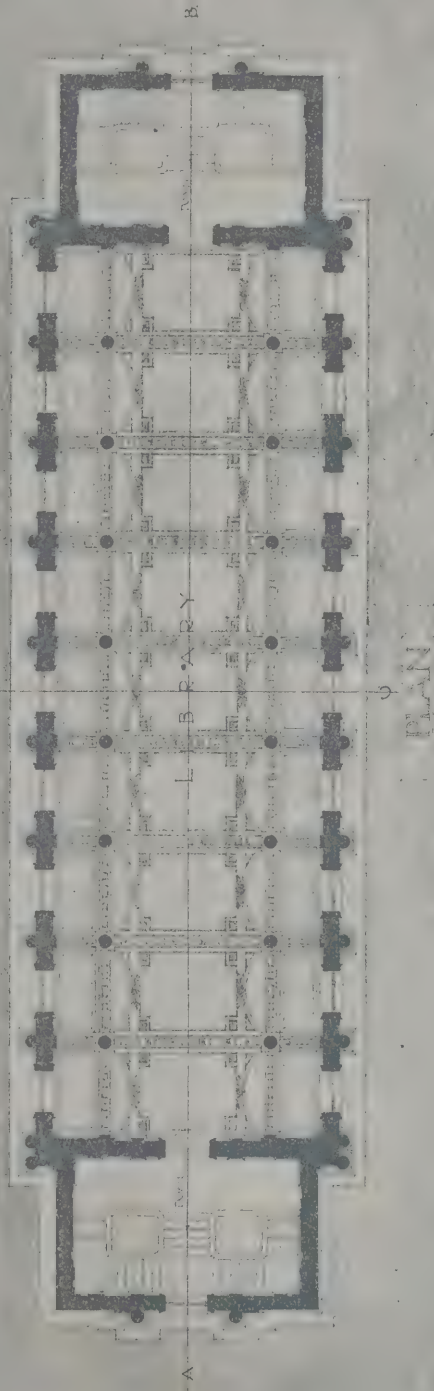




DESIGN FOR A LIBRARY WITH LOGGIA.



FRONT ELEVATION



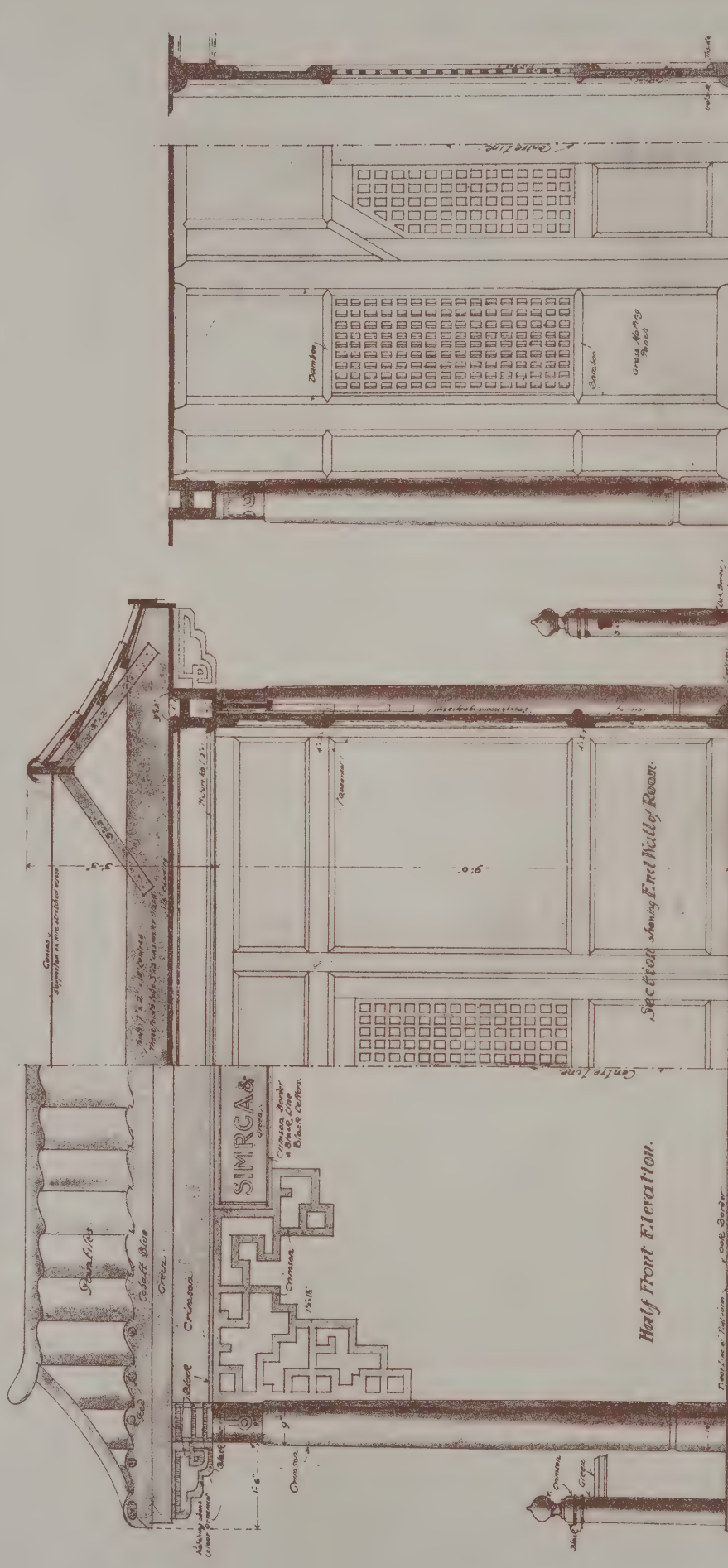
PLAN

"INK-PHOTO" SPRAGUE & CO. LTD. 69 & 70, DEAN STREET, SOHO, W.





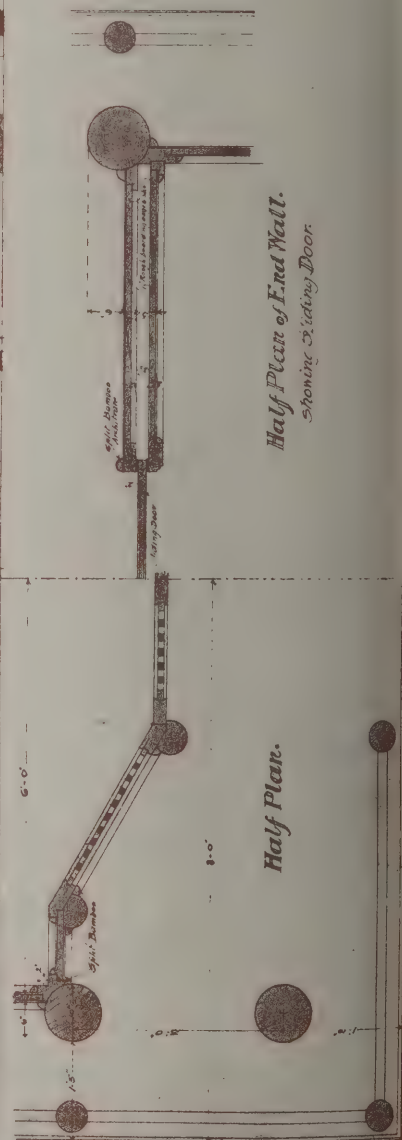




Section thro' Window

Front Elevation of Room.

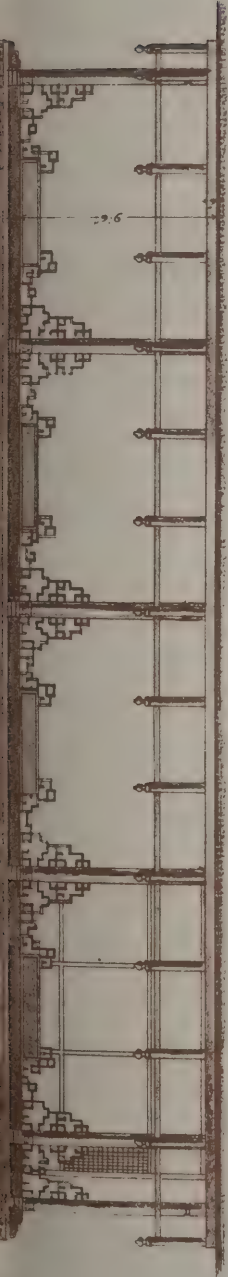
Proposed Stumps.  
Electrical Exhibition.  
Olympiad.  
for Messrs. Siemens Bros. & Co. Ltd.



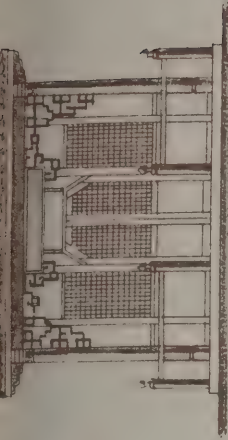
Half Plan of End Wall.  
Showing Existing Door.

Half Plan.

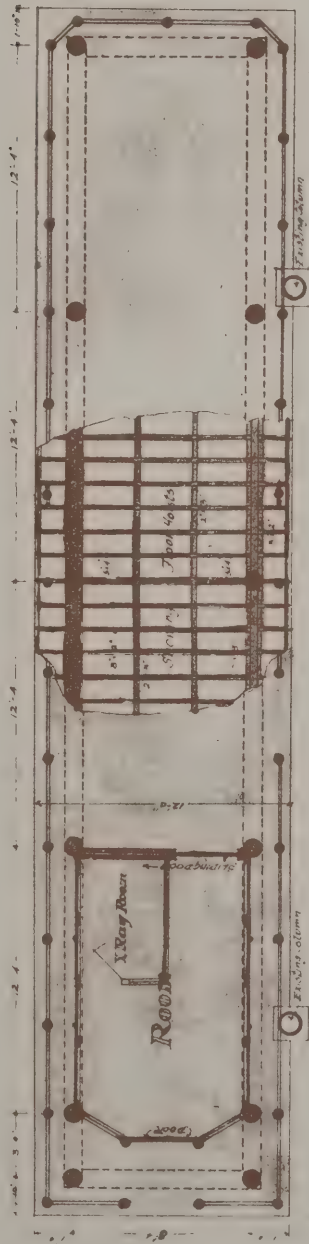




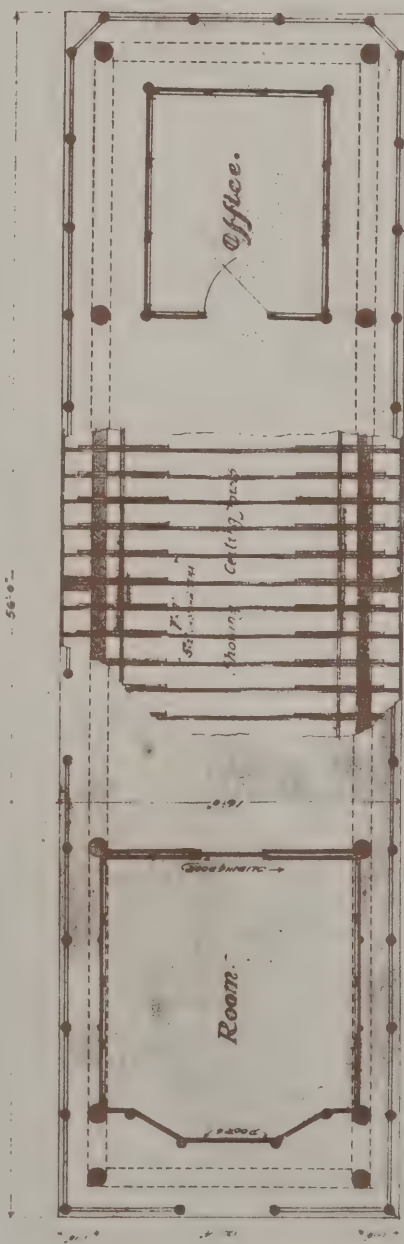
*Side Elevation of Stand.*



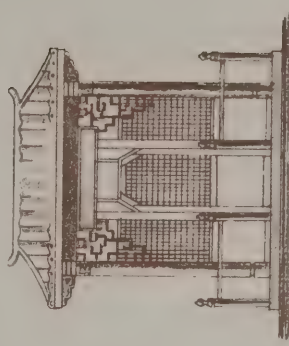
*Front Elevation.  
Stand No. 75.*



*Plan  
Stand No. 84.*



*Plan.  
Stand No. 75.*



*Front Elevation.  
Stand No. 84.*

*Proposed Stands.  
Electrical Exhibition  
Olympic.  
for Messrs. Siemens Bros. & Co. Ltd.*

*W. Kaula A.R.B.A. Arch.  
25, Bloomsbury Way,  
LONDON, W.C.*

SCREENLESS PHOTO PROCESS SPRAGUE HAYCOCK, PRINTERS LTD 69A TO DEAN STREET LONDON, W.1

STANDS ERECTED FOR MESSRS. SIEMENS BROS. & CO., LTD., AT THE ELECTRICAL EXHIBITION.

W. KAULA (WILLS & KAULA), ARCHITECT

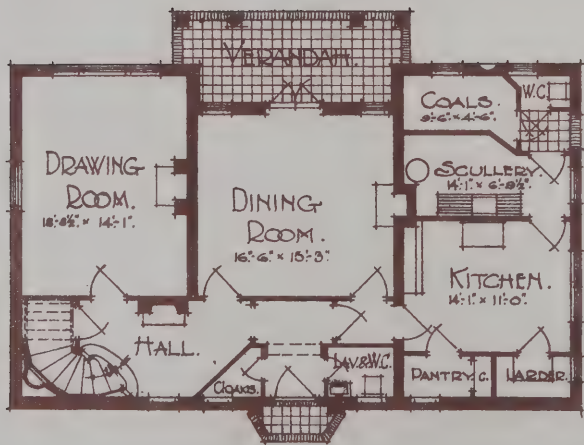




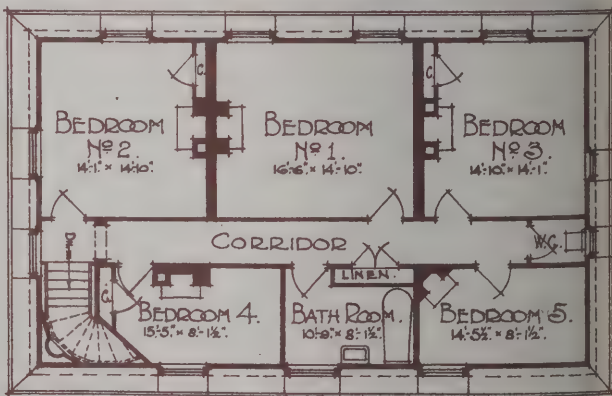




AUSTENWOOD COMMON ESTATE.  
HOUSE C.



GROUND FLOOR PLAN.



FIRST FLOOR PLAN.

PHOTO-LITHO. SPRACUE & CO. LTD. 69 & 70, DEAN STREET, SOHO, W.





AUSTENWOOD COMMON ESTATE.  
HOUSE .D.

FIRST FLOOR PLAN.



GROUND FLOOR PLAN.

PHOTO-LITHO SPRACUE & CO. LTD. 69 & 70, DEAN STREET, SOHO, W.





## Illustrations.

DESIGN FOR A LIBRARY BY C. R. GALLIE, SCHOOL OF ARCHITECTURE, ABERDEEN.—DIPLOMA AWARD.  
 DESIGN FOR A LIBRARY WITH LOGGIA BY W. J. TAYLER, SCHOOL OF ARCHITECTURE, ABERDEEN.—DIPLOMA AWARD.  
 STANDS ERECTED FOR MESSRS. SIEMENS BROS. & CO., LTD., AT THE ELECTRICAL EXHIBITION.  
 W. KAULA (WILLS & KAULA), Architect.  
 PROPOSED HOUSES, AUSTENWOOD COMMON ESTATE, GERRARD'S CROSS. WILLS & KAULA, Architects.

## Notes and Comments.

## The Coming Struggle.

WE are glad that the National Federation of Building Trades Employers have accepted the Government proposals with regard to the dilution of the building crafts, as it must bring about some solution of the present impasse which is holding building back. We suppose that the outcome may be a great strike, which we hope will be dealt with firmly, for it would be monstrous that the building-trade operatives who are seeking to saddle the community with a most barefaced tyranny should receive unemployment pay of £1 a week from the community which is suffering from their exactions. We do not believe we can have peace until the workers recognise that in placing themselves in opposition to the nation they have placed themselves out of Court. We heard of a little jobbing builder the other day who is building his own house and has obtained the services of a good Union bricklayer on the house on conditions. These are that if the employer is not a Union man he must not work at the same time as the bricklayer, who said, "We are fighting the Government and must keep our hands clean." This in a land which had the reputation of being the home of liberty is amusing but hardly satisfactory.

## The Metropolitan Water Board and the Public.

AT a time when building is most expensive, and its advance is a difficulty, the Metropolitan Water Board have chosen to make a new departure in issuing to their inspectors and others new instructions. These have resulted in the rejection by the inspectors in many parts of the Metropolitan Water Board area of fittings which have hitherto been fixed without any difficulty arising. This "rejection" is in the form of a statement that the fittings "cannot be passed," or that they "are not proved," or that they "must not be fixed," because they are not made in accordance with either the specification of the New River District of the Metropolitan Water Board, or in accordance with the specification of the British Waterworks Association, which is not yet published. Generally and in effect the inspectors are saying, "We are giving the builders and plumbers definitely to understand, that a supply of water will be withheld unless the fittings are thus made and stamped."

This would mean, if enforced, that fittings which manufacturers have made, and which have proved perfectly satisfactory, would have to be scrapped and new ones made, the cost of which, together with the cost of the scrapped stock, would largely fall on the public.

In the opinion of an eminent legal authority, the Water Board cannot legally insist upon the use of fittings made in conformity with their "specification," nor can they legally refuse to supply water to buildings which are fixed with water fittings not in accordance with the "specification" if the fittings comply with the regulations of 1872. The Water Board would have no visible chance of obtaining the consent of the Ministry of Health to any new regulation requiring the use of water fittings to be made in accordance with any such, indeed any, "specification." The effect of such a "specification" is to increase the cost of building, which at the present time is obviously against the public interest. The Water Board have no power in law to insist that any water fittings, before being fixed in buildings, must be sent to their testing office or be tested anywhere or receive the approval or disapproval of the Water Board, nor have they any right to charge a fee for testing. Of course there is no obligation upon the Water Board to test fittings.

It is hoped that this effort on the part of a public authority to put another and most unjustifiable burden on the public will be strenuously resisted and defeated, as no useful purpose can be served by it, while the cost of building, which is already checking commercial development, will be still further increased. It is another case of officialism gone mad.

## The Architectural Assistant.

A CORRESPONDENT challenges the Secretary of the R.I.B.A. to answer a certain question, and we imagine that his answer, or that of any reasonable man, would be this: If the assistant mentioned is continuously employed by any architect in making working drawings from rough sketches, and if he is competent to do this satisfactorily, he will have no difficulty in obtaining £6 a week, or £1 a day, for his services. We quite agree that his work deserves such a salary. Our point is this—that the great majority of practising architects are not in the happy position of the architect quoted, and have not continuous work for an assistant "in marking out working drawings and details from rough sketches," but may of them do, and will, employ assistants if they can obtain their services for a smaller figure. Is it or is it not in the assistant's interests to try to prevent him from working for such architects? It must always be remembered that, while the principal or the partner has to take the fat with the lean, sometimes making nothing for months and sometimes earning good fees, the assistant always gets his salary, whether fully or partially employed. Sometimes he may be doing very important work for what is a small remuneration; at others he is partially "standing by," and receiving a salary which he is not at the time giving a *quid pro quo* for—owing to circumstances, we admit. The salary, in other words, represents a flat rate governed by the architect's average circumstances and wants, and the maintenance of this flat rate may or may not be a convenience on both sides. The alternative method is either to do without assistance or for the architect to only employ occasional assistance at a high figure when he has a press of work on. This may or may not suit both, but the assistant must, to arrive at his average salary, count up the periods of unemployment, which may materially decrease the figure, while, like the draughtsman employed in making perspectives, he becomes an occasional man. The best thing for each man must depend on temperament, chances, and circumstances, which are outside the power of any Union to deal with.

## The Telephone Service.

MR. JOHN R. REMER, writing to "The Times" on the subject of the Telephone Service, makes the following interesting suggestions:—

"If, as is generally admitted, everything is wrong with telephone management, what can be done to put it right?"

"(1) I think the country should be divided into telephone areas not exceeding twenty in number, within which no trunk call should be necessary.

"(2) Each of these areas should have its own telephone authority, with a board of directors elected by the telephone users.

"(3) The profits of each area, after paying a rent to the Government, should be divided: Half to the telephone users as a rebate on their rates; a quarter to the employees as an increase on their salaries and as an



encouragement towards profitable and economical management; and a quarter to create a reserve.

"(4) These boards would be able to issue bonds, as is done by the Mersey Dock and Harbour Board and the Port of London Authority, to enable them to make rapid and immediate extensions in the facilities offered.

"I put this forward as a skeleton scheme, which I trust will be carefully considered as an alternative to the present system."

The scheme is one which has been evidently carefully thought out, and will, we hope, receive full consideration, as it contains useful automatic checks and safeguards against the defects from the effects of which we now suffer.

### Commercial Buildings.

WE admire Mr. Selfridge's enthusiasm and energy but believe he rather loses a due sense of scale. We do not think that the treatment of every building should be determined solely by its size or the amount of money which an owner can spend upon it. We think that towers and other features associated from time immemorial with public buildings and churches in which every citizen has a communal interest are inappropriate and vulgar—however they may be treated—when forming an adjunct to a shop or commercial building. Mr. Selfridge does not see why the store should not be treated as if it were as important as a church or town hall, but we do not agree with him in this, and believe that the attempt to so treat it is an unpardonable vulgarity approximating to bad manners in ordinary life. A tower in Mr. Selfridge's new building is an advertisement meant to attract people to his shop and not an effort to give dignity to a building intimately connected with our beliefs, our feelings, or some great national object. By all means let us have good shops, convenient, well-lighted and well-designed, but we do not want them shouting in our streets that the greatest thing in life is the successful retail selling of commodities. Mr. Selfridge's announcements take up quite a large space in our papers but with the most friendly feelings towards him we do not want to see him make quite as big an architectural display in London.

## The Society of Architects and the Building Exhibition.

A FEATURE of the Building Exhibition at Olympia last year was the innovation introduced by the Society of Architects in organising the Architects' Welcome Club, and a number of conferences and social functions, all tending to bring those concerned into closer relationship in matters of common interest.

The successful pioneer work of the Society has resulted in their being joined this year by the Royal Institute of British Architects and the Architectural Association in the organisation of a similar programme.

The Princes' Rooms at Olympia will be equipped as before as an Architects' Club for use during the period of the Exhibition from April 12 to 26, and there will be exhibitions of architectural photographs and of drawings from the leading architectural schools and ateliers, and cinematograph demonstrations of the work of the architect in carrying to completion with the aid of the contractor the buildings the architect has conceived and designed. There will also be lectures by experts on subjects of public interest, with special reference to the provision of homes for the people. These demonstrations and lectures will be free to the public visiting the Exhibition, one of the objects being to enable the uninitiated to gain a better idea of what is involved in the training of an architect and what he stands for in the national scheme of public service.

On Friday, April 22, there will be a public dinner in the Pillar Hall, Olympia, organised by the three architectural bodies, when representatives of the Government, kindred institutions, foreign architects, and of the building industry will be the guests of the Club.

Through the generosity of the director of the Exhibition the use of a special admission ticket by members of architectural societies will ensure a contribution to the director to the funds of the Architects' Benevolent Society, so that these architects will not only derive personal pleasure and profit by visiting the Exhibition, but will be the means of adding, without expense or obligation to themselves, to a fund which, at the present juncture is greatly in need of support.

An official programme will be issued in due course and in the meantime any communications in regard to the Architects' Welcome Club programme should be addressed to the Secretary of the Society of Architects, 28 Bedford Square, W.C. 1; the Secretary of the Royal Institute of British Architects, 9 Conduit Street, W. 1; or the Secretary of the Architectural Association, 34-35 Bedford Square, W.C. 1.

## An Unpublished Book of Æsop.

### No. 4.—The Wise Men and the Byldyr.

Now in the time whereof we write the records were certain wise men who sat in high places and were connected with the Artz and a renowned racehorse known as the Byldyr. Very full of life was the Byldyr, in spite of his years, which were more than three-score years and ten. And in the years which are passed had he been ridden by several jockeys which were of the Society of the Artz, and most of them had the Byldyr thrown from the roadside in his career, so that they picked themselves up and rubbed their hurts and sought other occupation. But in the dwelling near by the Byldyr's stable was one who, for more than three decades of years, he tended the noble animal, and he became even the Byldyr's jockey, nor was he of the Society of the Artz. And great fortune fell on the Byldyr and great races did he win by his exceeding speed in the Advertizment-raises. Now the wise men of the Artz meeting together argued in this wise: "If none of the fellowship of the Artz can without grievous accident on the back of the Byldyr, as if one other who is not of the Artz can compass this feat, must we not say he is exceeding able and should be one of us? And so they carried it, and great honour was done by the Fellowship of the Artz to the jockey who could ride the Byldyr without grievous hurt. Now we opine in this that the wise men showed wisdom, as it was not written on tablets of clay in far Chaldea that nothing succeeds like success, and do not men on this earth, and possibly the gods in high Olympus, yield to force majeure?"

MORAL.—If wise men show wisdom, truly are they wise, and who can rightly criticise the judgments of the mighty?

MR. WILLIAM C. HARDISTY, F.R.I.B.A., died at home in Brighton Grove, Rusholme, on Friday at the age of sixty-five years, after a distressing illness. He was architect of the Crossley Sanatorium, Delamere, one of the first of the large institutions to be erected in this country for tuberculosis. Mr. Hardisty visited Germany in 1899 for the purpose of getting the best information available on the subject. Himself a devoted Churchman, Mr. Hardisty was the architect of two churches at Oxtun, Birkenhead, as well as of Christ Church, Moss Side, St. Chad's, Ladybarn, and St. Philip's, Gorton. For fifty years he was a chorister in Manchester.

THREE wills of architects have been recently published. The largest sum is that of Mr. John Brightmore Mitchell Withers, of Heatherleigh, Oakholme Road, Sheffield, architect and surveyor, a former President of the Sheffield Society of Architects and Surveyors, and a former member of the R.I.B.A. Council, who left £57,932, net personality £7,000. The second is that of Mr. Henry T. Hare, P.P.R.I.B.A., of Egypt Wood, Farnham Common, Bucks, and Gray's Inn Square, W.C., who died on January 10, leaving estate of gross value of £23,033, the net personality being £16,000. Mr. Thomas Reeve Grieg, of Abbeville Road, Clapham, S.W., and of Kingsway, W.C., architect, left estate valued at £10,810.



## London Art Galleries.

(All Rights Reserved.)

LAST week was an important week for English water-colours in the art galleries and sale-rooms. One of the choicest displays of these—including some exquisite Birket Fosters, and work by Copley Fielding, David Cox, Bonington, Prout, and Brabazon—was on the walls of Christie's, for the sale on Friday, February 25; but these drawings will be noticed later in this week's Notes, and pass on now to the exhibition of selected water-colour drawings of the early English school during the months of February and March at Messrs. Thos. Agnew & Sons Galleries in Old Bond Street.

The present exhibitions keep on the high level of those dealing with English water-colour art which have ere preceded it, and has also some new and very interesting features. We come first to Peter de Wint, who is well represented with four paintings on the first two walls. Cool, reserved, reposeful are epithets which might be applied to his "Quayside," No. 1 in the exhibition, which would be a delightful painting to live with; while, personally, I prefer the lovely colour and sense of atmosphere in his "Below Richmond, Yorkshire" to his more ambitious and larger "Lancaster." Directly below this last is J. R. Cozens' "Mountains in Umbra," with its grand drawing of the bare peaks, which we appreciate at a little distance.

Then we come to J. M. W. Turner, who, as in previous years, is worthily shown here. We have six paintings here together, ranging from the comparatively early "Lake of Lucerne from Fluelen" (about 1809, Turner's first tour on the Continent was in 1802), through the middle period shown in the careful drawing and rich colour of his "Grenoble Bridge" (1824), to the riot of rainbow tints exquisitely blended in his "Lake of Zug" (1843) and "Descent of the St. Gothard, Valley of the Ticino" (1842-1845). Thomas Girtin was born in 1775, and the quality of style in his work was admired by his contemporaries, who allude to the "sword play" of his pencil and the boldness of his washes. He appears here in six characteristic works, hanging above an admirable portrait drawing of "Ratibon," in which that artist revels in the beautiful Gothic detail.

Next to these we come upon nine water-colour drawings by Francis Towne, an artist of great merit, who, I must confess, is new to me, and possibly to other visitors. Towne lived from 1740 to 1816—that is to say, he was contemporary of John Robert Cozens and Thomas Girtin; and the reason his drawings are so little known to the public is, as I believe, that, apart from the British Museum collection, these drawings remained till recently in the hands of the Merivale family and other descendants of the artist to whom they had been left. Francis Towne is, however, an artist whom collectors will not wish to lose. Belonging to a good period, his work has individual style and good drawing, with the bold, clean, swift wash of Girtin himself. I was particularly attracted by his "Monte Cavo, near Rome," a subject which he treated twice, and by his drawing of "Ambleside." Then we come to a most beautiful Copley Fielding, the wide sale of "Patterdale" bathed in misty light, and to Birket Foster's delightful sheepfold; and with E. M. Vimperis we are among the moderns. The comparison is instructive: but we may feel that Birket Foster, V. Muller ("Near Athens"), Vimperis and Thorne quite stand well even beside de Wint, Girtin, and Copley Fielding.

Last week saw also opened the attractive "Spring Exhibition of English Water-colours" which Messrs. Bromhead and Cutts have brought together in their Cork Street Galleries. "In the Spring," writes Mr. A. J. Finberg in his foreword to this catalogue, "a young man's fancy lightly turns to thoughts of love; and the dealer's to thoughts of water-colours." What I feel about this exhibition is that it has been extremely well selected, and shows good quality right through. Messrs. Agnew's annual exhibitions of English water-colours have always

pre-eminently possessed these qualities, but it would not be too much to say of the Cork Street Galleries this spring that they make a good second. Perhaps the gem of the whole display is the lovely drawing of "Sallenche," by John R. Cozens, which faces us on the stairway, and which was painted in 1778; but it is well supported by the work of Girtin, Peter de Wint ("Ploughing near Oxford" is to be noted), Copley Fielding (three paintings include a "Landscape with River," lent by Lord Amherst of Hackney), David Cox (note two delightful little sketches of this artist's own house), William Callow, and Samuel Prout (Swiss cottage with figures).

We get here, too, Sidney Cooper in some of his earlier cattle pieces (1839), J. M. W. Turner in one of his earliest known drawings, the subject being the Pantheon in Oxford Street (now occupied by Messrs. Gilbey) after it had been destroyed by fire—a drawing made when Turner was sixteen years of age,—a water-colour drawing by William Riviere, father of the late Briton Riviere, R.A., its subject "The Trout Pool," and an exquisite little drawing by John Ruskin himself called "A Study of Box," with all this artist's delicate finish. Nor have the moderns been neglected. Among these Lamorna Birch ("Western Fields"), D. Murray Smith ("Afternoon, Buckinghamshire"), and Bernard Evans come well forward, while earlier we find Birket Foster, and H. B. Brabazon in his Italian scenes.

At the Fine Art Society last week was opened a well-arranged triple display of oil paintings by Richard Jack, R.A., Bernard Priestman, A.R.A., and Archibald Barnes, their work alternating with very good effect. I have known Richard Jack more in portrait and figure work hitherto, but some of his landscape here, notably "A Derbyshire Moor," was a revelation. I do not myself like white frames and mounts for oil work, and some of the paintings so framed (Nos. 40 to 57, especially 43 and 45) seem to suffer from this treatment. Bernard Priestman is at his best in "A South-West Wind" and "Bembridge Harbour"; and Archibald Barnes in his figures shows clean, fresh drawing and colour. S. B.

## Art News of To-day.

Of first importance in art sales was that of Messrs. Christie, Manson & Co. on Friday, February 25. Prices had shown a certain tendency to drop during the last weeks; but, on the other hand, seldom has there been such a superb collection of water-colour drawings of the English school put forward as were on Christie's walls last week. J. M. W. Turner, Copley Fielding, Birket Foster (twenty-one paintings, Nos. 90 to 110, this last, "The Butterfly," a masterpiece), David Cox, R. P. Bonington ("The Asinelli Tower, Bologna," another gem of English art), de Wint, and Brabazon were enough to make any collector's mouth water, and it might be felt that if prices fell here things were bad for art indeed.

This was, in fact, almost something of a test sale, bringing dealers up from all over the country, and by two o'clock on the Friday afternoon the sale room was already crowded. It may be said at once that bidding was worthy of the grand quality of the goods offered. The "Derwentwater or Keswick Lake," by J. M. W. Turner, which had belonged to John Ruskin, in the John Edward Taylor sale before the war brought 2,200 guineas; on Friday it started with Mr. Sampson's bid of 500 guineas, and after a sharp contest fell to Mr. Gerald Agnew for 2,300 guineas. Before this had come Copley Fielding's glorious drawing of "Staffa" (dated 1853), which went up to 1,300 guineas, a record, we believe, in prices for this fine artist, and certainly doubling its previous sale price. The exquisite little Bonington, above mentioned, fetched 200 guineas, as against 155 guineas in the Taylor sale. The sale showed, as a whole, that for pictures of the best quality there is still good money to be found among us.

The death of the veteran Academician, Mr. G. D. Leslie, R.A., last week makes another gap in the ranks of the Royal Academy.



## Edinburgh Architectural Association.

NEW light was shed on one of the oldest and most famous of Edinburgh squares in a lecture on "George Square: Its History and Romance, 1766-1820," delivered to the Edinburgh Architectural Association on February 24, in the Hall of the College of Art, by Mr. W. Forbes Gray, F.R.S.E., Mr. T. P. Marwick, A.R.I.B.A., President, in the chair. The lecturer considered erroneous the notion that when higher standards of domestic comfort necessitated removal from the tall lands and dark closes of the Old Town the well-to-do and the fashionable betook themselves to the ridge on the further side of the valley once covered by the Nor' Loch. The first migration was not to the north, but to the south. Brown Square was built and George Square was building before a stone of the New Town had been laid—before even the Act extending the "royalty" over the fields to the north had been passed. That a new and more wholesome Edinburgh might be reared on the sunny and breezy uplands beyond the Flodden Wall was a potentiality firmly grasped by the middle of the eighteenth century. The principal inducements were that this area was not liable to public burdens, and that it was near the Old Town.

George Square was the creation of James Brown, an Edinburgh architect, who was also responsible for the erection of Brown Square, Charles Street, Crichton Street, and Buccleuch Place. In 1761 he purchased twenty-six acres in this quarter for £1,200. The Town Council had declined the first offer, but no sooner had Brown bought the property than that body realised its mistake. The Corporation offered Brown £2,000, but he refused to sell for less than £20,000. Having feued the ground, Brown received the purchase money as an annual return. Brown's fueing plan (1779) was shown, and it was mentioned that the Square was not called after George III., as is generally supposed, but after George Brown of Lindsaylands and Elliston, the architect's brother. Building operations were begun in 1766, the first houses being erected on the north side. By 1779 the east and west sides were completed, while the south side was finished about 1785. The stone was obtained from Craigmillar, and most of the houses were built by Michael Nasmyth, the father of the painter of the famous portrait of Burns, and the grandfather of James Nasmyth, the inventor of the steam-hammer.

The early residents had special privileges and obligations. Those who lived in the Square were forbidden to engage in "any trade or merchandise," or to bake or brew "for sale." Nor could they engage in any handicraft. Further, those who grew corn or other grains on Heriot's Croft were required to send all cereals damaged by fire or water to the "milns commonly called Cannon milns," so that they might be "grinded."

George Square, during the period under review, was the abode of much poetry and charm of Scottish life. At least thirty Border families, all noted more or less, had their town residences there.

## Birmingham Architectural Association.

THE ninth general meeting of the session of the Birmingham Architectural Association was held at the Queen's Hotel, Birmingham, on February 25, when the President, Mr. H. T. Buckland, F.R.I.B.A., occupied the chair.

Mr. Lionel B. Budden, M.A., A.R.I.B.A., read a paper on "Architectural Education." The lecturer prefaced his paper with the observation that in most articles and discussions that have been devoted to this subject, no clear definition of the function of the architect could be found, some visualising him as a structural engineer, others as an artist, and others again as a hybrid between an artist and a business man. Mr. Budden

therefore began with an analysis of the actual duties of the architect.

An architect was required to be an expert in planning; to have a thorough knowledge of materials and methods of construction; to be competent in certain technical sciences involved in the practice of architecture—such as surveying, sanitation, hygiene, acoustics, &c., to know how to fuse together the programme of practical needs, materials, and construction into an æsthetic whole—in a word, to be able to design; to be proficient in the presentation of design, and to understand the administrative, legal, and financial procedures relating to architectural practice. In former days, proficiency in all these subjects could be acquired, but owing to the more extensive range of to-day, this is impossible, and specialisation becomes inevitable, and architectural education must be adapted to meet that situation.

Five of these essentials could be taught, but the faculty of design can only be stimulated and given means of expression, and it is for this that a school is better fitted than an office as a means of instruction. The greatest difficulty arises in how to correlate the school and the office. The pupil could go to a school in the morning and an office in the afternoon, but he would have great difficulty in concentrating on his work; he could go to an office in the day time and to classes in the evening, but then he would be exhausted and almost incapable of taking in knowledge; or he could go to school for certain periods of the year and to an office during the remainder. This seems the most sensible and correct method to employ.

Every effort should be made to place actual examples before the students, and Mr. Budden instanced the fact that the cinema was being used at the Beaux Arts, for teaching construction.

In the space of five years there is not sufficient time to teach more than one style, and the principal of the school should decide on the most suitable, and teach it thoroughly in all its aspects, ignoring other styles entirely. Mr. Budden ended by advocating the adoption of an academic system of architectural education, which would be able to offer scholarships, thereby affording an opportunity to people who had the ability, but who could not afford to pay the fees.

At the conclusion of the lecture, Mr. W. Haywood proposed a vote of thanks, which was seconded by Mr. E. F. Reynolds, and carried unanimously.

## Possibilities in Brickwork.\*

By Nathaniel Lloyd, O.B.E.

BRICK has been defined as "a factitious building stone made from the silicates of alumina and hardened by heat, but in plain English brick is burned clay."

There are three ways of burning: in the sun, in kilns, and in built up masses by fuel mixed with the clay, which the bricks are formed. The last method is largely used in this country and little, if at all, on the Continent.

The Egyptians made their bricks of clay mixed with straw and baked in the sun. This answered in Egypt and countries where there was little or no rain. In the second century Agis, besieging Mantinea, turned the course of the river against the walls of that town and dissolved them "because they were made of crude brick," which, as the ancient historian says, "truly is safer against the shock of military engines than either burnt brick or stone, for these get broken." We may gather from this what progress the science of fortification had made so long as, 1800 years ago.

The earliest mention we have of bricks is in Genesis xi, 3, say upwards of 4000 years ago, when the Tower of Babel was projected and we read: "Let us make bricks and burn them thoroughly." And they had bricks for stone, slime had they for mortar. Slime was bitumen. In Samuel II, xii, 31, we read "David made the children

\* Synopsis of a lecture delivered before the Northern Architectural Association, Newcastle-on-Tyne, on February 23.



of Ammon to pass through the brick-kiln." That would be 3,000 years ago.

Roman bricks were long and thin, were made in the same way as and resembled our paving tiles. In the south wall of the chancel of St. Martin's Church, Canterbury, I have measured a number of these Roman tile-bricks up to 22 inches in length, varying in thickness from 1 inch to  $1\frac{3}{4}$  inches and laid with very thick joints, four courses rising  $14\frac{1}{2}$  inches.

Most Italian buildings are built of brick (the Florentine brick measures about 12 inches by 6 inches by  $1\frac{1}{2}$  inches), overlaid with marble  $\frac{1}{4}$  inch to 1 inch thick. In Northern Italy terra-cotta ornaments are used architecturally, but these are not to be confused with bricks.

The Romans introduced their method of brick-making into this country, but, after they left, the art appears to have died out and we do not find bricks again until medieval times. The earliest of these are stated to be those at Little Wenham Hall, of the thirteenth century. During the fourteenth, fifteenth, and sixteenth centuries brick-making in this country was popularised and influenced by refugees from the Low Countries and France, who settled here and not only re-introduced the art, but made a strong impression upon local architecture. The Low Countries are the home of modern brickwork and you will recognise their influence in many of the slides I shall show you.

I cannot now enter into the complexities of sizes of bricks, which have varied from Egyptian bricks measuring  $16\frac{1}{2}$  inches by  $8\frac{1}{2}$  inches by  $5\frac{1}{2}$  inches, equal to a cube of 771 inches, to tiny Dutch bricks measuring 5 inches by  $2\frac{1}{2}$  inches by  $1\frac{1}{4}$  inches, or equal to a cube of 16 inches. Say relative proportions of 48 to 1.

Now my object in coming here to-night is to show you a number of ways in which one may use bricks and I propose to commence with examples of simple projections and to pass from them gradually to more elaborate treatment in mouldings and ornament. I hesitate to use the word ornament because it is a discredited word. In almost any town one sees buildings exhibiting the misuse of ornament. Some years ago, large quantities of moulded brick and terra-cotta were produced by manufacturers and stocked by builders' merchants for incorporation by builders as strings, copings, cornices, finials, and panels. I believe the free use of this rubbish had the effect prejudicing the use of the right kind of brickwork, so that it went out of fashion. I should rejoice to see a revival of the right use of brick mouldings, &c.

May I suggest the importance of avoiding excessive projections, of using mouldings as sparingly as if stone were the medium and the exercise of great caution in employing ornamental details. I hesitate to say which of these three matters is the most important, but, perhaps, too great or insufficient projection are the commonest stumbling-block. In ordinary three-storey buildings one finds examples where it is right to provide 4-inch projection to pilasters, but many more need only 2 inches. Raised panels may be raised 2 inches, but more frequently one; drifting to blocks at quoins seldom more than 1 inch, apron pieces 1 inch or less, but all depending upon the scale of the building.  $1\frac{1}{2}$ -inch projection each course in corbelling is about the limit and often much less will be necessary, as I pointed out last year when speaking of the sailing courses of chimney caps.

The fifty slides illustrating this lecture include examples of simple and moulded projections, bonds, copings, pediments, various stages of brick-cutting, cornices, doorways, complete orders in brick, steps, chimneys, plaster on brick mouldings, gauged work, rubbed work, windows, fireplaces, tracery, and brick carving. By means of these I have endeavoured to show some of the ways—the many ways—in which brick can be used. Of colour, I cannot give examples, but may remind you what a wealth of variety is available. You may recollect that last year I spoke of the importance of choosing bricks having texture and suggested that, as bricklayers are in the habit of laying the smoothest side of each brick outwards, they might as easily expose that having the best texture. There would be no more delay in doing one rather than the other.

At the present time, when bricklayers are limiting their output to some 350 bricks daily, it is found here and there that concrete blocks (made and handled, largely, by unskilled labour) have slightly reduced building costs. Bricklayers might easily lay four times the number of bricks they now lay daily, when brick would once more be found the cheapest of all building materials and we should hear no more of concrete blocks.

I maintain, not merely that there is no building material than can compete with brick, but that there is none that can approach it.

Its components are obtainable everywhere. It is warm. It is light. It has texture. It has a greater variety of colour than any other material. It weathers for centuries, improving meantime. It can be moulded, rubbed, cut, and carved.

Finally, it responds to and rewards a thousandfold the care and forethought of the user if he be sufficiently an artist to appreciate its wonderful qualities.

## New Books.

"Byzantine and Romanesque Architecture." By Sir T. G. Jackson, Bart., R.A. Cambridge University Press. £4 4s. net.

THIS is a second edition of an able and scholarly work, well illustrated by reproductions of a great number of the author's drawings, which bear witness to the care and thoroughness with which he has investigated a most interesting subject. Many of these remind us of the delicate pencil-drawings by which Ruskin illustrated his works, and though we now feel they are somewhat old-fashioned in type, they are excellent and pleasing of their kind. Now some of our architectural writers analyse a building in much the same manner that a surgeon operates on a patient, but Sir Thomas is pleasantly descriptive in an easy, scholarly way which is peculiarly his own. He writes that in our present day, when the supremacy of Greek art is insisted on, Roman art has fallen somewhat into disrepute, but since he wrote these sentences architectural research and education has changed, and it is now generally admitted that the Romans are to be regarded more as a race who adopted and expanded Greek architecture to meet the wants of a more complex civilisation than as an inartistic race who plastered their ruder monuments with the forms of a civilisation they imperfectly understood. Roman planning and Roman study has long been the foundation on which French architects are trained, and is now, through our schools, coming into its own in English architectural education. But it is natural that Sir Thomas Jackson's great knowledge of history and of literature should convince him of a truth which the more prejudiced and ignorant took long to recognise—that Roman civilisation was the one channel through which the foundation of the modern Europe we know was made possible, and nothing can ever efface its influence on our lives and on our art. Rome may be likened to a bow which, distended and altered in form when drawn back, takes at rest its original form, and in like manner we may say the whole of Byzantine and Romanesque architecture was distinctly and closely founded on that of Rome, and only in the brief mediæval period was the Roman likeness lost for a time to be regained almost line for line in the later period of the Renaissance—a Roman architecture again essayed by races who spent a fraction of the colossal sums of the Cæsars on the capitals and monuments of modern Europe. Sir Thomas's sketch of Byzantine architecture in Salonica, Constantinople, and other centres is both vivid and analytical, while through Ravenna, that focus of conflict between Eastern and Western civilisation, he passes to Rome and a discussion of Lombard architecture and that of Pisa, Florence, and Lucca; while his second volume treats of the Romanesque of France, Germany, and England. The book is one which will be useful to the student, but if anything more valued by the lay reader, who will find pleasure in its mastery of historical fact and clear and vigorous descrip-



tion, for it is no mere work of reference but a picture of the historical sequences and meanings of European architecture.

"The Water Colours of W. Russell Flint, R.W.S., R.S.W." With foreword by Malcolm C. Salaman. 1920. "The Studio."

A VERY appropriate and useful publication is that of the present study of Mr. Russell Flint, under the sub-heading of "The artist and his career," illustrated by eight reproductions in colour from Mr. Flint's work in water-colour. This work will, without doubt, be well known to some—and probably to many—among our readers; and has been frequently noticed in our columns during even the present year, both in connection with the very successful display of his work in this medium at the Galleries of the Fine Art Society last spring, and with later exhibitions.

Born in 1880, Russell Flint was the son of an artist. "Designing and illuminating engaged his father professionally . . . and here again one may trace inherited tendency, for, like the son, the father always loved water colour best of all mediums and used it efficiently." Lithographic work was what occupied Russell Flint in his earlier days, and he was working with the lithographic printers at this time from 8 a.m. till 6 p.m., while giving his evenings to the Edinburgh School of Art. But all this time "between whiles he would seize every opportunity of painting from nature for the sheer love of it"; and passing on to book illustrations he found here the opportunity for his water-colours. Mr. Bernard Partridge was already interested in the young artist; and Mr. Philip Lee Warner recommended him for the illustrations of the Medici Society's Riccardi Press. Russell Flint did the drawing for a number of their publications, including Homer, Chaucer, Malory, Theocritus, Matthew Arnold and Kingsley: but perhaps it was with Malory's "Morte d'Arthur" that he felt the closest personal attraction. He was engaged for two years on this last work, and told Mr. Salaman that "when he had finished the forty-eight drawings he would willingly have started on another forty-eight." His charming series for the "Idylls of Theocritus" must not, however, be here overlooked—"richest in imaginative expression and most artistically satisfying in their pictorial qualities of colour and design."

It was in 1900 that Mr. Russell Flint "began his habit of an annual continental trip for painting purposes, Paris or Normandy being usually his objectives"; but it was not till 1911 that he could spend a year in Italy and Sicily. I was myself in Italy at that very time, and know how immediately his luminous painting, with its clean washes and well-drawn figures, caught the appreciation of the Italians. He arrived at Milan a little late for the admirable annual show of the Society of Lombard Water-colour Artists, but all the paintings he could send them were sold, and the President of the Society told me he could have sold twice or three times their number. Venice was not included as far as painting went, in that visit; but I understood from the artist that he hoped to visit the City of the Lagoons, which appealed to him immensely, in the present year.

The present volume gives us, in Mr. Malcolm Salaman's text, a slight but direct and attractive study of "the artist and his career,"—a career which, we feel, may have yet further developments and successes awaiting it; and the eight colour-plates, well reproduced, give us an idea sufficient, but scarcely so complete as we might have wished, of the luminous skies, the clean direct treatment of figure or landscape which belong to this brilliant modern artist.

S. B.

"Highways and Byways of Northumbria." By P. Anderson Graham. With illustrations by Hugh Thomson. Macmillan & Co. 7s. 6d. net.

THIS is a delightful little book giving a good account of one of the most picturesque counties of England which

is little known by most of those living in the South. The county which contains Newcastle, Alnwick, Warkworth, Hexham, Morpeth, and Bamburgh is especially rich in tradition and history, while the Tyne, Coquet, and Tweed are all rivers famous for their beauty and association with legend. Berwick, the border town, which is neither Scotch or English, is treated in a very interesting chapter by itself. Newcastle deserves a volume to itself, for in spite of its busy commercial character it is both one of the finest and most picturesque of our provincial towns, and is well shown in some of Hugh Thomson's delightful sketches. Other illustrations which may be noted are those of Bamburgh Castle, against the background of a stormy sky, Seaton Delaval, and Blyth Harbour. The book, like others of the series, is a skilful web of legend and history, with briefly and pleasantly written descriptions of topographical features. Messrs. Macmillan have been fortunate in their selection of authors for this admirable series of books, which are both pleasant and useful companions to those of us who would know our own country.

"What to See in America." By Clifton Johnson. Macmillan & Co. 16s. net.

THIS is an admirably produced little book whose 500 illustrations, very well reproduced from good photographs, give an excellent idea of the beauty and interest of the United States. Each section dealing with a single State is naturally short, and would not serve in itself for a guide; but an examination of the book will give intending visitors to the United States an admirable idea of the sections they might like to visit, and enable them to look for more detailed information in special works. Such a series of illustrations as that of Montana, for example, gives an admirable idea of the fine and wild scenery to be found there, while the general notes on the chief cities and on the historical associations of the various States are all that can be desired. It should be possible for the intending visitor to America to plan out the main lines of a tour from an examination of this book, and the details can be filled in at leisure. Apart from this it affords a complete answer to those who imagine the United States as being devoid of natural interest, since many of the illustrations show scenery which it would be impossible to surpass in Europe for beauty or grandeur of scale. It should be recommended by every tourists' agency since it contains precisely the general information which travellers abroad require, while it forms a most attractive volume.

THE Council of the British School at Rome met last week at the offices in Lowther Gardens, Exhibition Road, W. under the presidency of the Prince of Wales. The various Faculties were elected for the ensuing year. The Faculty of Architecture is composed as follows:—Sir R. Blomfield, Sir John Burnet, Mr. H. Chalton Bradshaw, Mr. W. Curtis Green, Sir Edwin Lutyens, Mr. Ernest Newton, Professor C. H. Reilly, Mr. Gilbert Scott, Mr. J. W. Simpson, Sir Aston Webb. Mr. Chalton Bradshaw is, of course, the first architectural student to win the Prix de Rome.

At a general meeting of the Western branch of the South Wales Institute of Architects, held at the Baltic Lounge, Castle Street, Swansea, the following officers were elected for the ensuing year:—Chairman, Mr. Glendinning Moxham, F.R.I.B.A.; Hon. Secretary, Mr. J. Herbert Jones, F.S.Arc.; Hon. Treasurer and Librarian, Mr. H. C. Portsmouth, F.S.Arc.; Committee, Mr. J. Cook Rees, F.S.Arc., Mr. C. S. Thomas, F.S.Arc., Mr. H. A. Ellis, M.A., F.S.Arc., Mr. Thomas Gibb, M.S.A.; Associates' representative, Mr. G. L. Crocker. Mr. Hubert Rogers was elected honorary auditor. The following were elected to represent the branch on the Council of the South Wales Institute of Architects:—Mr. Glendinning Moxham, F.R.I.B.A., Mr. J. Herbert Jones, F.S.Arc., Mr. J. Cook Rees, F.S.Arc., and Mr. Thomas Gibb, M.S.A. Mr. G. L. Crocker was elected to represent the architects' assistants and pupils.



## Capri and Amalfi.—III.\*

By Professor Renato Paoli.



PLATE I.—BALCONY WITH ARCHED ROOFING.

It has been remarked that the ancients cared little or nothing for landscape, as such. They did not imagine that there could be an intimate connection between a beautiful prospect and a condition of mind: often in front of a picturesque scene they seem to have remained indifferent. This entered into their domestic architecture, of which I was speaking in the last of these articles. They did not imagine that even in the intimacy of home-life near their own hearth there existed the need which is so pressing and so precious to us moderns, of the enjoyment of natural beauties; a need which can be estimated by the architectural effort of houses which, before a fine landscape, try to climb one above another, or clamber up into some less accessible point, from which a beautiful outlook can be obtained.

As I have remarked the type of the house at Capri is the exact opposite of the antique house. The open space, the "peristilium" of this last, is here occupied by rooms which communicate with each other, not only within, but also without by means of terraces and balconies which run around the house. And since at Capri the sea is beautiful and the hillside is beautiful, the east is beautiful, and not less so the west, and from every side the outlook has always a beautiful prospect before it, so the house is furnished with the greatest possible number of doors and windows, so that the air, the sunshine, the daylight can penetrate from every side.

The columns of the ancient "peristilium" have indeed remained, but distributed around the house to support arches of vines and festoons of wisteria. And, as the native population has no scruples about concealing from the eyes of strangers their domestic life, they live at Capri not only in the open air but actually under the

eyes of the passers-by. The traditional "glass house," in which, according to a wise saying, the statesman ought to dwell, has become a reality at Capri. For this purpose the house is not confined to the central building, but taking advantage with ingenuous charm and fine perception of the different levels of the soil, is extended by many tentacles into the garden, the kitchen garden, and fields adjacent by means of extensions, little accessory constructions connected together by terraces, porticos, narrow stairways, arches and corridors,—to such an extent that it is difficult to know sometimes where the house ends and the garden and kitchen-garden begins. The luxuriant vegetation of the island inserts itself in the most bewitching way with pergolas and festoons of flowers within the domestic enclosure: the house spreads itself out at full length, like a cat enjoying the winter sun, adapting and accommodating itself to the broken nature of the ground, terraced and strengthened with the soil.

It is worth seeing, too, with these master-masons,—who know no school of architecture, who have never heard speak of Vitruvius or Vignola, who possess no other instruction than the practical but humble craft of the mason ("muratore"), no other rule than that dictated by their own eyes,—with what genial and inspired fancy, with what innate refinement of taste, with what spontaneity of imagination and variety of solutions these craftsmen have, in each individual case, resolved the numerous questions arising from the irregularity of the ground, the scanty space available, the soil on all different levels, and with what simplicity they have adorned the house with just what is needed, without trimmings and without academic memories.

On the littoral of Amalfi, all exposed to the south, a target for the shafts of the African sun, a type of house



PLATE II.—AMALFI; STEPS BEHIND THE HOTEL LUNA.

\* I.—Amalfi, July 2 (1920): II.—Ravello, January 28.





PLATE III.—AMALFI: FRONT OF THE HOTEL LUNA.

open to the light, to the air, to the gaze of the passers-by, like those of Capri, where the temperature is uniformly mild, would be entirely uninhabitable.

So here the house finds a new form of architecture. But here, too, as the sea is most beautiful and the country enchanting, the Amalfitan does not abandon the fine outlook, but rather wishes to enjoy it. The houses, owing to great scarcity of land for building, climb one above the other, striving which shall be the highest, when they do not mount to the top of the hill to get a yet wider outlook. Their openings are generally small, to let just as much air and light pass through as is needed, and no more. But more numerous than the windows, especially on the side of the sea, are the balconies. The balcony is wide and protected by a flattish arch, so arranged that the rays of the sun, low in winter, can penetrate into the house: in the summer, on the other hand, the sun being high, they are warded off by the arch. And the arch is the fundamental element of the house at Amalfi. One arch, two arches or three: one floor with arches, two stories, three . . . the house is arranged according to the rhythm of these arches, not calculated by any mathematical formula, but designed by the eye of masons, who from generation to generation have transmitted the unconscious secret of these characteristic curves.

The symmetry of rule is here unknown; and equally so the Academic canons. After a pillar is supported,

not on its own base, or even, as Bramante would have advised, on the key of the arch, but barely at its side. The only rule is the harmony of masses as it results to the beholder's eye; for the "muratore" of Amalfi does not use design and plans, but conceives his scheme in the very act of building, with the spontaneous improvisation of a contemporary poet of the people.

The variety of architecture and the fixed rules of style are here side by side in happy union. Where the arch is not possible, the master-mason constructs a most elegant "tettoia" (roofed shed or "marquise") with the same curve as that of the arch (Plate I.). And where he has had to keep the street wide, and yet find space for the interior of the house, he keeps the outside wall projecting at a certain height over the road, supported upon little arches, which make no pretence to be symmetrical or even regular. Yet again, as on this coast the land is by no means level, and these differences of gradient impose on him stairways and terraces, hanging gardens and porticoes, the builder, with an exquisitely decorative sense and marvellous mastery of his craft, has taken his advantage in the variety of line, character, movement in his construction (Plate II.).

The architectural details here merit special attention: cornices, window-ledges, architraves, pilasters, columns, roofs and gutter, roof leads and ridges and terraces are alike admirable for the elegant simplicity of



PLATE IV.—A TERRACE AT ATRANI



their lines, which might be sought in vain from qualified architects, whose taste has been spoilt by the manuals and their eye by academic instruction (Plate III.). Each house here is different from its fellow, the only thing in common being their architectural rhythm and their decorative elements. For every house offers a different solution of problems offered to it by variable quantities—the unequal ground level, the uneven space at disposal, and the limits of this space, the position in regard to the sea—and all these in their turn impose their requirements on the construction (Plate IV.).

We have here to ask why some artist of taste and genius does not go to seek out in these enchanting surroundings inspiration, points of view, motives for a civic architecture which shall be purely Italian. A German, who had studied with affection these popular constructions of Capri, Amalfi, and Ravello, has, in fact, constructed some "villini" at Rome. Being German he succeeded in reproducing with scrupulous fidelity the architectural elements of those parts of South Italy: but, for the same reason perhaps, or because he combined them badly together, the result often showed little taste.

And this example would deserve to be followed out by one who had the eye of an artist—and the heart of an Italian.

## Gift of a Staircase to the Nation.

WITHIN a short time the Victoria and Albert Museum at South Kensington will be enriched by the addition of a wrought-iron staircase of much beauty and interest. No. 35 Lincoln's Inn Fields, having been purchased by the College of Estate Management, is now undergoing certain internal alterations, which will make it more suitable for educational purposes. The architect has received instructions to preserve as far as possible all noteworthy features, but, as it is impossible to preserve the staircase in its present position, the Governors of the College, with commendable public spirit, have presented the ironwork to the nation. The process of removing it has been begun, and it will be transferred at once to the Museum.

The balustrading is of finely wrought iron, and on the first landing is a panel of similar work. It consists of nearly forty panels, each being adapted to its particular position. They are of the well-known lyre pattern, embellished with acanthus leaves in repoussé work. The panel on the first floor is of great beauty, the centre is occupied by a monogram within an acanthus leaf framework, which rests upon a cloth of Estate, and is surmounted by a satyr mask; it is flanked by bold scrollwork enriched with applied acanthus foliage, the upper scrolls terminating in eagles' heads.

The lavish use of embossed foliage and other decoration suggests that the ironwork was the production of a London smith early in the eighteenth century, who was an admirer of the style of Jean Tijou, the French smith, who had just completed his great work at Hampton Court and St. Paul's Cathedral. In presenting this excellent example of decorative ironwork to the Victoria and Albert Museum, the College of Estate Management has shown a commendable sense of responsibility towards the public. If that sense were more generally diffused among individuals and bodies, who have in their hands the fate of fine specimens of old English workmanship, the national museums would become what they ought to be, places where the taste and skill of former generations of English craftsmen, shown in a really representative series of samples of their work, might serve to stimulate and direct the efforts of their successors.

THE usual lectures on the history and architecture of St. Bartholomew-the-Great, E.C., will be given in the church on Saturdays, March 5 and 19, at 2.30. No tickets are required. The crypt and cloister can be visited without charge, but a collection will be made for the recovery of the remaining bays of the East Cloister. There will be an organ recital at 2 o'clock.

## "The Architect" Fifty Years Ago.

MARCH 4, 1871.

THOROUGHLY imbued with Ruskinism, and a consequent hatred to all shams in building and architecture, I lately visited the largest cities in the great Western Republic, expecting to find something to admire, and probably in New York a second Venice, or a Paris in marble. But I was grievously disappointed, for most of what I encountered was sham imitation, and unblushing deception. While walking along Broadway, New York, the long, straight, busy street seems blazing with marble of the purest white, but to the eye of the European architect the sight is one of intense disappointment. With few exceptions, the buildings are all classic; and as we have come to consider marble such a precious material, from its scarcity in Britain, and, from reading the "Stones of Venice," to associate it so much with Gothic, to find it used here for common forms and details, such as are found in Britain in stone and brick, seems such a waste of good material, that we are prepared immediately to find fault with it. The prevailing idea seems to be that because a thing looks costly, it ought to look well; that a plain wall with square window openings, just because it is built of marble, must look better than a freestone front, although its windows are ornamental and its capitals and stringcourses carved. It is probable that if there were some cheap and lasting way of making a Broadway front look like gold, there would be found men in New York with bad taste enough to do it.

When we examine these marble buildings we find that the greatest number of them are only brick cemented and painted in imitation of marble; many are entirely of iron, also painted; and even some of those that are marble are supported on the ground-floor by iron pillars painted white. In regard to the rest, if three inches were stripped off the face of the walls, nothings would be left but a backing of brick! Of course there are many substantial marble buildings, such as the National Academy of Design, St. Patrick's Cathedral, and A. T. Stewart's house, New York; the Treasury and Post Office, Washington; Girard's College, Philadelphia; the Masonic Temple, Boston, and others; but all, with few exceptions, are costly models of the Parthenon, Pantheon, &c.

## Forthcoming Events.

*Friday, March 4.*—Town Planning Institute.—Meeting at 92 Victoria Street, Westminster. Paper by Mr. Edgar L. Chappell entitled "The South Wales Regional Survey." 6 P.M.

*Saturday, March 5.*—Architectural Association.—Visit to Bank of England.

*Monday, March 7.*—Surveyors' Institution.—Meeting at 12 Great George Street, Westminster. Paper by Mr. A. B. D. Lang, F.S.I., entitled "The Report from the Select Committee of the House of Commons on Business Premises." 8 P.M.

*Tuesday, March 8.*—Liverpool Architectural Society.—Meeting at 13 Harrington Street. Paper by Mr. J. H. Sellars, F.R.I.B.A., entitled "An Architect's Use of a Library." 6 P.M.

—Institution of Civil Engineers.—Meeting at Great George Street, Westminster. Paper by Mr. Stephen Leggett, M.Inst.C.E., entitled "The Amritsar Hydro-Electric Irrigation Installation." 5.30 P.M.

—Royal Sanitary Institute.—Meeting at 90 Buckingham Palace Road, S.W. 1. Discussions on "The Sanitary Engineering Side of Town Planning," to be opened by Mr. Edward Willis, A.M.Inst.C.E., F.S.I., and "Town Planning of Built-on Areas," by Mr. George Pepler. 5 P.M.

*Wednesday, March 9.*—Association of Engineers-in-Charge.—Meeting at St. Bride's Institute, Fleet Street, E.C. Paper by Mr. A. J. Assheton entitled "The Economic Utilisation of Exhaust Steam." 7.30 P.M.

*Friday, March 11.*—London Society.—Meeting at 18 John Street, Adelphi. Paper by Mr. I. G. Gibbon, C.B.E., entitled "Zoning and Town Planning." 4.30 P.M.

A COURSE of six Advanced University of London Lectures on "Recent Engineering Works in Italy" will be given by Professor Luigi Luiggi, of the University of Rome, at the Institution of Civil Engineers, Great George Street, S.W., at 5.30 P.M., on March 7, 9, 11, 15, 16, and 18. The chair at the first lecture will be taken by his Excellency the Italian Ambassador. Admission is free.



## Correspondence.

## The Architect's Assistant.

To the Editor of THE ARCHITECT.

SIR,—Reference your article of February 25 on this subject, you state that you believe that nineteen-twentieths of architects in this country are capable of carrying out such work as they do without assistance. I cannot make out whether the reference is qualitative or quantitative. If the first, I sincerely hope so; if the latter, certainly not. My Union would certainly not put forward a statement which would reflect on the professional ability of the general body of practitioners. As regards the quantitative interpretation of your statement, however, I am absolutely sure of this fact, that no principal, yesterday, to-day, or to-morrow, has kept, does or will keep, an assistant for amusement; my own experience is that as soon as the assistant is no longer wanted, whatever salary he may be receiving, he is discarded. I believe a raising of the standard of wages will cause him to effect certain economies; we maintain, however, that the assistant will still be better off.

But to me it seems you are illogical. You state that the profession is overcrowded, that the majority of principals have not enough work in hand. You also advocate the assistant to start in practice as soon as he can do so. Now if there is not enough work for those already in practice, how are those not in practice to establish themselves without taking even that away from those who have.

Let me turn to your axioms. An axiom is defined as a simple statement, the truth of which is so obvious that no proof is necessary. In other words, there can be no two opinions as to an axiom. Let us see.

"Axiom" No. 1.—*The majority of practising architects are not wholly incapable of doing what work they have themselves.* If the reference is qualitative, yes.

"Axiom" No. 2.—*The amount of work each architect obtains is usually determined by circumstances which he is seldom able to control.* I think this is, to some extent, debatable; if not, there is no blame whatever to the man who cannot obtain any work after his brass plate has been put up.

"Axiom" No. 3.—*The average architect, while not seeing his way to increase his work, could do with less assistance by working harder himself.* The small architect could not do with much less, the average architect, I do not think would be able to effect any real saving.

"Axiom" No. 4.—*While every building costs more than it did before the war, the average architect for that reason is likely to have less to do, which neutralises the higher fees received.* My experience is that it reaches to nothing like neutralisation; architects are also supposed now to be charging 6 per cent., not 5 per cent., and more proportionately on small jobs. I have heard of at least one architect (not a Londoner) who has, during the last year, been able to purchase a new motor-de-luxe.

"Axiom" No. 5.—*If the architect has fewer commissions he is in a better position to do the work involved in carrying them out himself.* Granted.

"Axiom" No. 6.—*The high cost of living, combined with the shortage of work, hits the architect, as well as the assistant.* Yes, but the shortage of work during the last year did not exist and, on account of the accumulated arrears of building during the war, is not likely to be very great for a few years to come. Also, the man with the larger income is not hit so badly as the man with the smaller income, the rise being proportionate. A small income leaves no margin for economies.

"Axiom" No. 7.—*The public will not pay higher fees.* To put this down as an axiom is quite wrong. We do not admit the truth of it at all. Moreover, many architects to-day are not charging what they might. I heard the story the other day of a well-known professional architect who had advertised for an assistant in what he thought was the certain hope of a large commission. An applicant turned up and was turned away, the advertiser explaining that he had always done Messrs. So and So's work for them at 2½ per cent. and had quoted this again, but Mr. ———, having, he understood, obtained the commission, he supposed he had undertaken to do the work for 2 per cent. I believe 2 to 2½ per cent. is quite a general figure in large parts of the country. We would rather architects regarded the present scale as a maximum, so long as they regarded it as a minimum, than not regard it at all, as many do not to-day.

"Axiom" No. 8.—*The assistant, unless he has private*

*means, needs continuous employment.* Granted, but much of the employment has always been casual.

"Axiom" No. 9.—*Most assistants prefer to be offices where they see work from which they can learn which will be of subsequent use to them.* True of assistants of certain age. Many of the older ones can also teach the employers.

"Axiom" No. 10.—*The best terms one man can obtain from another will chiefly depend on the personal equation and upon circumstances.* Your idea throughout is always individual bargaining, but why this between principal and assistant should be quite correct and not between architect and client I do not know. We admit that there must be certain amount of bargaining, but we want a satisfactory foundation on which bargains can be conducted.

"Axiom" No. 11.—*If the average architect cannot afford to employ assistants there will be much greater necessity to secure work from a few exceptionally fortunate men and the market for service will be correspondingly curtailed.* This is purely hypothesis, and I don't believe in practice as I have said above, it will prove true.

One question I should like to put. You have asserted and it has been asserted so often, that if a man is as good at all he can establish himself in a practice at least able to support him. If this be true, why cannot the small or average man be, by an extension of the argument, one of the fortunate few at the top?

You conclude with a reference to men at the Office Works obtaining salaries of £700-£800 a year. It all applies to men in other official offices, but do your readers realise that these posts are few, that such salaries compared with them very disproportionate responsibilities, often much as those of ten or more private practitioners put together, and that the vast majority of official assistants throughout the country are paid not more, often less, than their clerical colleagues. Where they get more than the outside assistant is entirely due to the clerical salary standard.

Yours, &c.,  
CHAS. McLACHLAN,  
Hon. General Secretary,  
Architects' and Surveyors' Assistants' Professional Union,  
33 Tothill Street, S.W. 1.  
March 1, 1921.

To the Editor of THE ARCHITECT.

SIR,—Referring to your second paragraph under the above title in last Friday's issue, I have made no contention that architects should charge higher fees; I simply asked the R.I.B.A. whether it admitted that its scale of fees was too low to allow for a proper salary for the assistant.

I now repeat that question to the Secretary of the Institute: Does the scale of fees allow for an assistant's salary of £6 6s. a week?

By assistant I mean the draughtsman who, from the principal's rough sketches, makes working drawings, details and so on, and who week after week, month after month, year after year, is kept very busy.

If the Secretary of the R.I.B.A. remains silent on the point every assistant will know how to interpret his silence.

Yours, &c.,  
HENRY HYAMS.  
6 Waterloo Road, S.E. 1.  
February 26, 1921.

## Ventilation in Picture Theatres.

To the Editor of THE ARCHITECT.

SIR,—Allow me to draw attention, through the medium of your valued paper, to the growing and urgent necessity for more efficient ventilation in picture theatres. This is a matter not of secondary importance, as the majority of architects evidently are inclined to believe, but is the most prominent feature in the design of these places, a feature which strikes the public to a far greater degree than does either the very imposing elevation or general planning.

With regard to sliding roofs or mechanical ventilation the latter, which is never carried out to its fullest, is a most efficient effect, although these methods are expensive to form, or if the architect be bound down to a fixed structure whereby he is compelled to do his utmost under financial circumstances, let his first thought fly to the method he would adopt to ventilate his new building to the satisfaction of the general public, who are very difficult to please on this matter.

Let some other element in the design suffer for the cause of ventilation sooner than erect a grand and imposing edifice.



## MODERN PLANT FOR DISPOSAL

*Surplus Mechanical and Chemical Plant, the property of Nobel Industries, Limited, is available for disposal. The list includes Steam, Gas & Oil Engines; Locomotives, Boilers, Air Compressors, Fans & Heaters, Pumps, Shafting, Pulleys and Weighing Machines. Also Buildings of Steel, Wood & Brick*

Descriptive Pamphlets will be sent with  
**FULL PARTICULARS  
ON APPLICATION**  
Write or Telephone—Victoria 4299

**NOBEL INDUSTRIES LTD.**  
PLANT SALES DEPARTMENT  
5 Palace Street, LONDON, S.W.1



Platers' Shed at Large  
Shipbuilding Yard,  
coated with  
"Bitumastic" Solution.

## "BITUMASTIC"

Regd. Trade Mark.

### Lengthens Life of Steel and Iron Structures by Preventing Rust.

It lasts longer, dries quicker, goes much further, and costs less than oil paints. Although hitherto obtainable in Black only; Red, Brown, and Green shades can now be supplied possessing the lasting qualities of the Black, with the additional advantage of permanent colour.

## WAILES DOVE BITUMASTIC LTD.,

NEWCASTLE-ON-TYNE, London, Liverpool, Glasgow, Leeds, Manchester, Birmingham, Hull, Cardiff, Dublin, New York, etc.

Telegrams: "Bitumastic."

Telephones in Every Office.



## THE HELIUM FITTING

FOR USE WITH GAS-FILLED LAMPS.

### The Latest Product in Scientific Illumination.

ENSURES CORRECT DISTRIBUTION  
and UNIFORM INTENSITY OF LIGHT.

METAL WORK SUPPLIED IN EITHER  
PLAIN OR DECORATIVE DESIGNS.

*Our Illuminating Engineering Department is at the disposal of Architects and others for advice and assistance in the preparation of a HELIUM installation.*

## ALBERT LEE & COMPANY, Ltd.

Head Office and Showrooms: 8/9 NEW ZEALAND AVENUE, LONDON, E.C.1.

Works: ANDREW'S ROAD, HACKNEY, E.8.

And at NEWCASTLE-ON-TYNE, GLASGOW, and BIRMINGHAM.

Telephone: City 8668.

Telegrams: "Shadowless, London."

as bluff, behind which is lacking the greatest and most urgent necessity for assuring comfort and health, which two items impress the public to a greater extent than does the majestic beauty of the place.

In the second case, for an architect who may have every available source of funds at his command there is no possible excuse for avoiding efficient ventilation.

The most satisfactory method I know is that of double concrete louvres at a height of about five-sixths of the building, these to occur every ten feet and to be accompanied by cast-iron air vents at a height of about twelve feet.

Nevertheless, let each architect reason on this matter for himself, and so let him adopt whatsoever method he deems to be the most satisfactory and cheapest, but by no means neglect this all-important feature for that of some decorative treatment. The public go to see the play, and, even if they wished to, they could not fully perceive the decorative treatment, which may be external or internal.—Yours, &c.,

B. G. A. SMITH.

"Frogner," Pearson Park, Hull.

### British Industries Fair.

To the Editor of THE ARCHITECT.

SIR,—Judging from the notes that are appearing in the Press with regard to the British Industries Fair, there still appears to be a large amount of misconception in the minds of the writers as to the scope and object of this great national trade exhibition.

It has been pointed out time and time again that the section in London is by no means the whole of the Fair. The exhibit in London is comprised very largely of the fancy and luxury trades, whereas a large proportion of the staple industries of this country can only show at Birmingham and Glasgow. At the first-named centre practically the whole of the metal trades are represented, while at Glasgow textiles, boots, clothing, &c., are shown.

It should, therefore, be pointed out, when reference is made to this Fair, that the three sections are part of one whole, and that no visitor can cover the whole of the industries of this country without seeing them all.

May we ask your attention to this if you are dealing with the matter?—Yours, &c.,

J. A. STEAD,  
Publicity Manager.

Chamber of Commerce,  
95 New Street, Birmingham.  
February 22, 1921.

### Competition News.

SIXTEEN sketches were submitted in the Liskeard borough War Memorial Competition. The premium of five guineas has been awarded to Mr. E. C. Higman, of St. Cleers, whose design shows a granite cenotaph which is estimated to cost £750, exclusive of lettering.

THE Renfrew War Memorial Committee invite designs before April 9 for a memorial to cost not more than £1,200. The successful competitor will be entrusted with the work and the second best will receive a prize of £10. An architectural assessor is to be appointed. Mr. A. R. Harper, town clerk, Renfrew, is acting as honorary secretary and will furnish particulars.

In connection with the competition for Hillhead (new) High School for the Education Authority of Glasgow referred to in our columns some time ago, Sir John Burnet has now made his selection of the following ten competitors in the first competition:—Charles B. Pearson, F.R.I.B.A., 18 Dalton Square, Lancaster; Reid & Forbes, 14 Randolph Place, Edinburgh; W. Naseby Adams, A.R.I.B.A., 25 Ryder Street, St. James's, London, S.W. 1; A. B. Llewelyn Roberts, of Colclutt & Hamp, 20 Red Lion Square, London, W.C. 1; Thomas Braddock, 8 The Ridgeway, Wimbledon, London, S.W. 19; E. Berry Webber, 8 New Square, Lincoln's Inn, London, W.C. 2; Edward G. Wylie, A.R.I.B.A., 212 Bath Street, Glasgow; H. E. Clifford & Lunan, 209 St. Vincent Street, Glasgow; William Ross, 93 Hope Street, Glasgow; and John C. T. Murray, F.R.I.B.A., 69 The Outer Temple, London, W.C. 2. The above successful competitors will take part in the second competition along with the following ten competitors who had already been specially invited:—A. C. Dickie, M.A., Professor of Architecture, Manchester University; W. Curtis Green, F.R.I.B.A., 5 Pickering Place, St. James' Street, London, S.W. 1; Maxwell

Ayrton, 3 Verulam Buildings, Gray's Inn, London; H. Burke Downing, 12 Little College Street, London, S.W. 1; A. M. Paterson, M.A., A.R.S.A., 266 St. Vincent Street, Glasgow; John Keppie, A.R.S.A., 257 West George Street, Glasgow; John Watson, F.R.I.B.A., 242 West George Street, Glasgow; Reginald O. Fairlie, 14 Randolph Place, Edinburgh; Andrew Balfour, F.R.I.B.A., 110 Main Street, Blythswood Square, Glasgow; and Matthew Adam, 160 Hope Street, Glasgow.

### A Useful Extensible Step-ladder.

BUILDERS, decorators, shopfitters, and others using ladders will be glad to know of the new "Zerlini" extensible step ladder, the patent rights of which for the United Kingdom have recently been bought by a British concern, which employs only ex-Service men, who have actually been in the firing-line. The "Zerlini" ladder is made entirely of hard wood, no nails are used in its construction. The extensible portion, just doubling the length of reach, is firmly fixed by a special metal clamp to two parts of the main ladder, and its height is regulated merely by clamping on at anyone of the rungs. It can also be extended laterally, and used as support for a plank platform. For painters', glaziers', and plumbers' use it is treated with Solignum, thus preserving it, and rendering it more or less fire-resistant. The step-ladder is made in eight sizes ranging in height from 4 ft. 6 in. to 18 ft., and in price from 28s. to 57s. 6d. free on rail. Inquiries should be addressed to Captain Reeves, the Forge Factories, Under river, Sevenoaks, Kent.

### General.

THE expenditure to date on the repairs to the roof of Westminster Hall is officially calculated to be £68,000.

MR. CHARLES W. LONG, F.R.I.B.A., has resumed his London practice at 36 Bloomsbury Square, W.C. 1.

UNTIL the end of August Sir John Soane's Museum, 13 Lincoln's Inn Fields, will be open free from 10.30 to on Tuesdays, Wednesdays, Thursdays, and Fridays, and at other times by cards obtained of Mr. A. T. Bolton, F.S.A. F.R.I.B.A., the curator.

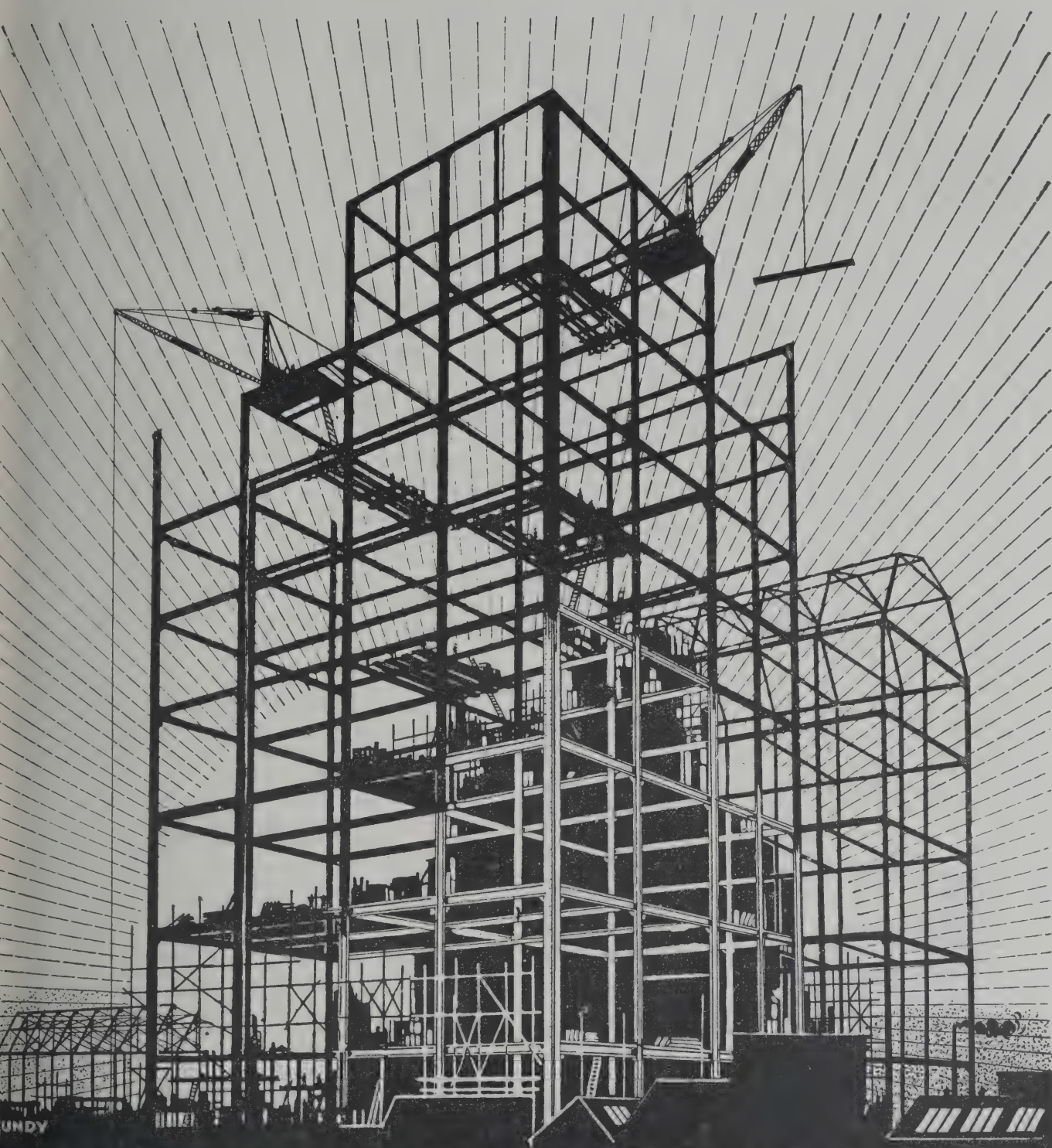
THE Royal Berkshire Regiment War Memorial Committee have accepted a tender by Messrs. Wallis & Sons, of Maidenstone, to erect the cenotaph, as designed by Sir Edwin Lutens, R.A., at the Barracks, Reading. Nearly £2,500 has so far been received towards the cost.

THE Dean and Chapter of York have failed in their effort to raise a fund of £1,000 for the preservation and repairing of the ancient chapel of the Vicars-Choral of York Minster in Bedern, which had been condemned by the local authorities as unsafe. The Chapter Clerk has now written to the Corporation stating that the effort to raise a fund having failed, the Dean and Chapter do not look for further consideration or ask the Corporation to delay any action they think advisable. The Streets and Buildings Committee have been instructed to take the necessary steps in regard to dealing with the structure as a dangerous or dilapidated building.

THE lecture on "Cottage Hospitals," which is to be delivered at the Royal Institute on Monday, March 14, 8 p.m., by Mr. H. Percy Adams, F.R.I.B.A., promises to be of great value to those who have to deal with the provision of new hospitals in the near future. Mr. Adams, who is one of the best-known hospital architects in the country, is the designer of: Newcastle Royal Infirmary; Bristol Royal Infirmary; the King's Sanatorium, Midhurst; Warneford Hospital, Warwick; Woburn Cottage Hospital, and many others. It is expected that a number of eminent hospital authorities will be present at the meeting and will take part in the discussion.

EXTENSIONS of Gresham's School, Holt, Norfolk, of which the Fishmongers' Company are trustees under the Gresham Trust, were opened last Saturday. The new buildings include biological and geographical laboratories, manual training shops, art-room, and two class-rooms. The school was built in 1903. Mr. J. W. Simpson, P.R.I.B.A., and Mr. Maxwell Ayrton have designed these extensions, temporary buildings. They are of elm framing, made up in sections and bolted together, with a 6-inch concrete floor and roofs of light elm-board covered with Norfolk reed thatch 12 inches thick. It will last without repair for forty or fifty years. The total cost, including furniture, is £7,000 or £1 8s. per superficial foot, as compared with £5 per foot using normal materials.





# REDPATH BROWN & CO., LTD.

## CONSTRUCTIONAL ENGINEERS

### WORKS AND STOCKYARDS

LONDON  
Riverside Works,  
East Greenwich S.E.

MANCHESTER  
Trafford Park.

EDINBURGH  
St Andrew Steel Works.

GLASGOW  
Pinkston.  
Office 19, Waterloo St

BIRMINGHAM  
Office: 47, Temple Row.

NEWCASTLE-ON-TYNE  
Milburn House.

London City Office:- 3, LAURENCE POUNTNEY HILL E.C.4



## The Modern System of Hot Water Supply.

### Coke and Anthracite Boilers.

Hot water is constantly required in every house. Yet in most homes the supply is spasmodic, inconvenient and costly. The word "Hot" on the tap is often a gross mis-description of a tepid flow which issues at the bidding of the optimistic guest. It is far easier for the average man to get into "hot water" at the office than it is in his own home.

Probably ninety per cent. of the houses in this country are fitted with coal-burning ranges designed to fulfil the triple function of cooking, water-heating, and room warming. Obviously, such a combination is bound to be unsatisfactory to the modern housewife who wants hot water at all times.

The provision of a constant and adequate supply of hot water necessitates the use of a separate heating unit for this single purpose. This is generally recognised nowadays, and there is a steadily and rapidly increasing demand for geysers and circulators, and, more especially, for coke-fired boilers, on account of their considerably higher economy. In this connection, one naturally thinks of Messrs. R. Jenkins and Company, Limited, the well-known boiler makers of Rotherham, of whose products it may be said, without exaggeration, that they have revolutionised the practice of domestic water heating.

Messrs. R. Jenkins and Company, Limited, manufacture domestic supply boilers in a number of types and sizes, from the smallest "Kalor," capable of providing eleven gallons of water per hour at 150 degrees Fahrenheit, to the largest "Osho" boiler, with a capacity of 152 gallons of scalding water per hour.

The "Kalor" boiler has a flat top which may be used for warming plates, or, if desired, a hot closet may be fitted. Its fuel consumption (either coke or anthracite may be used) is very small, and may be made even smaller by the admixture of combustible rubbish. A fall door is provided so that the fire may be exposed for roasting or other purposes, the open door forming a con-

the best quality Siemens-Martin mild steel boiler plates is practically unaffected by the inevitable frequent and rapid changes of temperature.

Finally, reference must be made to the ingenious "Eco" boiler-oven combination, consisting of a coke or anthracite-fired boiler of the "Kalor" type, connected by a hot-plate extension and a common flue to a gas or electric cooker. The cooker is of the usual design, with boiling rings and grill on top. The great and novel advantage of the "Eco" combination lies in the intercommunication provided between the boiler and the oven. A damper allows the waste heat and fumes from the boiler to pass either straight across the hot-plate to the oven flue (there is no flue direct from the boiler) or to be deflected round the oven. In the latter case the oven will be maintained at a high pre-heat, so that it is only necessary to turn on the gas or electricity for a very short time in order to obtain the proper cooking temperature.

The fuel economy secured by the "Eco" combination is indicated by the fact that the waste heat from the boiler will provide about fifty per cent. of the total thermal units required by the oven when in normal use.

Messrs. R. Jenkins and Company, Limited, are also makers of wrought steel welded work such as tanks, cylindrical or rectangular; pans, plain or jacketed, annealing pans and pots, large tubes and numerous articles and parts of appliances which can be made welded cheaper and more satisfactorily than if riveted or made in cast iron. They will be pleased to quote prices on receipt of dimensional drawings. For this class of work large extensions and additions to plant have been made and in consequence deliveries are prompt. Messrs. R. Jenkins and Company, Limited, handle up to ten tons in weight and any thickness of plates from  $\frac{3}{8}$  in. up to  $1\frac{1}{2}$  in. Also copper pans, boilers and cylinders.

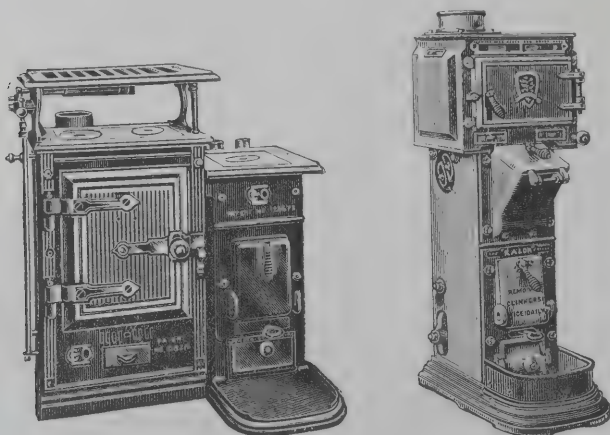
It speaks volumes for the satisfactory nature of this firm's products when it is stated that the demand has been so great as to necessitate the most wholesale additions to their works.

## Housing News.

THE Newport Corporation Housing Committee have decided to put in hand as soon as possible 147 more houses on the Somerton estate on the duo-slab system and another 100 brick houses on the St. Julian's estate.

ACCORDING to official estimates 5,300 additional houses are required to meet the needs of Greenock in the immediate future. Of that total the Corporation have undertaken to erect at least 2,000. They have already schemes on hand to provide 300 dwellings, a considerable proportion of which are in course of being built. It is now proposed that they should make further progress with their housing policy by the erection of 1,200 dwellings on ground they have acquired for building purposes in the Inverkip Road district. In this latest scheme it is intended that the houses should be of stone, and it is claimed that if reasonably cheap facilities for the transport of material from Ayrshire or Dumfriesshire could be arranged the houses could be built as economically, if not more economically, as if brick were employed.

THE Minister of Health was asked last week in the House of Commons whether the Department of Director of Building Material Supplies is necessary, as all public bodies, builders and contractors know where to purchase material quite as well as Government officials, and whether it is proposed in the interests of economy to abolish this Department. Dr Addison replied that he had no doubt the establishment of this Department shortly after the Armistice served a useful purpose in stimulating production and securing a sufficient supply of building materials at reasonable prices. In view however, of the changed conditions, he had decided that no further orders for materials shall be given by the Department unless a clear public necessity dictates a departure from this course. He was not yet in a position to say when it would be practicable to abolish the Department, as there was a great mass of accounts and other business to be dealt with. The materials purchased were not sold at a profit but the Department was required to recover the whole cost including overhead charges.



The "Eco" Combination.

The "Kalor" Boiler

venient rest for anything which has to be heated. Then there is the cheaper "Don" boiler, made in four capacities, giving twenty-one gallons, twenty-eight gallons, thirty-five gallons, and forty-five gallons of scalding water per hour respectively. The top of the "Don" is arranged so that the smoke outlet, can, if necessary, be reversed. The grate is of the rocking pattern and is therefore easily kept clear of cinders.

In the case of the "Osho" boiler, Messrs. R. Jenkins have produced a unit, relatively small in size, which is nevertheless capable of heating water far more rapidly than previous domestic boilers. As an indication of its heating power, it may be noted that the makers have obtained, under actual service conditions, as much as ten gallons of boiling water per square foot of heating surface per hour. The "Osho" boiler being made of



## CONTENTS.

"The Things which are Seen" . . . . .	PAGE 167	Forthcoming Events . . . . .	PAGE 173
Illustrations . . . . .	168	The late Edmund H. Sedding . . . . .	174
Notes and Comments . . . . .	168	The Mosque of Kutb-ud-Din at Delhi (Illustrated) . . . . .	175
The Expression of the War Memorial . . . . .	169	Correspondence . . . . .	177
London Art Galleries . . . . .	170	Notes from Ireland (Illustrated) . . . . .	178
Art News of To-day . . . . .	170	"The Architect" Fifty Years Ago . . . . .	182
Royal Institute of British Architects . . . . .	171	The Belgian Phoenix . . . . .	184
Royal Academy Ateliers . . . . .	173	Electric Light Fittings . . . . .	186

## "The Things which are Seen."\*

THOSE who attempt to extend the limits of knowledge engage in a fascinating pursuit, but one which has its dangers and pitfalls. The passion for completing the whole of what they have found a part often seizes writers, and in the attempt to do so they make hasty assumptions which are as unfounded as the fallacies they have exposed. "The Things which are Seen" exemplifies this, though there is much good writing and sound thought in it, but it would carry greater conviction had its author been less dogmatic and opinionated.

The author rearranges—to his own complete satisfaction—the Hierarchy of the Arts, and settles their order of precedence, and in a second division of the book treats of the Grammar of Design, its classification and division, and finishes the work by chapters on the relation of the Artist to different members of society.

We will begin first by alluding to a passage which shows the lengths to which a man may go to prove his points. In a chapter on Artist and Biologist, in which the author discusses intellect and instinct, allusion is made to an insect which lays its eggs in the body of a caterpillar, so that when the grubs come out they may be provided with food. To do this it stings the caterpillar at such a part of its nervous system that it can no longer feel pain, and yet can continue to perform its digestive functions necessary for the young grubs' welfare.

Now, how did the insect find the exact place to sting its victim? . . . Of course the answer is that the insect *knew*. It had an intellectual apprehension of the structure of the caterpillar. It may be objected that if this were the case the insect would have more intellect even than a human being. But that is not the true inference to be drawn from our premises. This very knowledge which the insect possesses marks it to be in an elementary stage of the evolution of species, while among men the internal processes of the body have operated so long that they have passed through the intellectual period and have become unconscious; in the case of creatures of a lower order these processes are partly conscious. The simplest kind of creature has its mind entirely occupied by the performance of animal functions. It is intellectually inferior to man, for it has not the superfluous mental energy which has enabled man to establish a great civilisation, but it possesses an apparent advantage over him inasmuch as it has a knowledge of certain things which in his case have now forever passed into the realm of the unconscious. He also knew them once, but he has forgotten them now as it is no longer necessary for him to retain them in his memory.

We doubt whether any theologian has ever been quite as dogmatic as this on a subject in which direct evidence is absolutely wanting, and this spirit is the great defect in a book with a great number of the conclusions in which we are in general agreement, though we should have preferred to see some of them put more tentatively.

The first of the Arts is defined as "The Cultivation of Beauty." As this may be said to depend not only on physical, but also the mental and moral

accomplishments which go to make up the *mens sana in corpore sano*, and as considered racially and nationally it depends on the general adoption of a good and gracious standard of life we are inclined to believe, with Mr. Trystan Edwards, that it may be considered in the forefront of the important things of life. But because the Greeks so regarded it we see no reason why it should be included in the Hierarchy of the Arts.

Again, "Manners maketh man," and are supremely important, while their cultivation and maintenance is a great object, but, this being granted, have we any sound reason to include them among the Arts?—we think not. It would be truer to say that these are things of greater importance than any of the Arts, and then proceed to enumerate them; as to Dress again we agree with the writer, it probably is infinitely more important to mankind than are any of the so-called Fine Arts, and it is indisputable that though it may be less openly discussed it is an object to which most of mankind give more attention. It is unquestionably a prior occupation to building, painting and sculpture: its limitations are more widely understood: and its conventions more rigidly binding on the great majority of mankind. But this being granted is not sufficient to establish it as a great Art, though, unlike Beauty and Manners, we may distinctly say there is a definite Art of Dress.

The chapter on "Architecture" is less open to criticism, and contains much that we are quite in agreement with, and much, it may be added, which has been frequently urged before, but the passages dealing with "good manners in building" and the avoidance of ostentatious display are very well stated.

Of course it may easily be that fabrics erected for utilitarian purposes may occupy even more ground than a university or cathedral, but that does not entitle them to domineer over the whole town. A shop with a big dome is rather like a private citizen who chooses to don the mayoral robe and chain simply because he thought he could afford to buy them and they were becoming to him. That the former anomaly should be so common whilst the latter is unheard of shows that people do not consider their architecture to be of such serious import to them as their dress.

Again, in speaking of vulgarity in building, the author says:—

Some of it has this blemish because the polite and agreeable people who are responsible for it have been taught by their academic masters that architecture has no other virtue except that derived from good construction, or the right use of materials, or the power to express the personality of the designer. But good manners can never be an independent creation, because they consist in an act of deference to society; and architecture in its developed civic form must express the spirit of society.

We are told that the primary distinction between the major and the minor arts is that the former are expressed in terms of reality, while the others are only reflections of that reality. This distinction is certainly one which operates in making painting and sculpture non-essential to the average man, but it

\* "The Things which are Seen." By A. Trystan Edwards, M.A., formerly Scholar of Hertford College, Oxford, A.R.I.B.A. London: Philip Allan and Co., Quality Court, Chancery Lane, W.C. 18s. net.



is only operative in degree. To the Greeks sculpture must have represented almost as much, if not as much, as architecture, while evidence exists to show that Greek painting, of which we have few records, excepting names, was to the Greeks a subject of the greatest importance and interest. Again, sculpture has an undeniably greater appeal to the modern Frenchman than to the modern Englishman, and, with these and other facts before us, we are inclined to modify the somewhat scathing appraisal of Mr. Tristram Edwards.

The second part of the book deals with the Grammar of Design and analysis of forms, and in it an attempt is made to show that the same rules and theories apply to natural objects as to design, and forms quite a useful analysis, although one which is vitiated by a spirit of dogmatism, which in some cases is productive of assertions which are a little childish. The author acts like one who having broken a false god into pieces feverishly re-cements the pieces together in a slightly different form, and calls on mankind to accept it as the revealed truth. Not the least remarkable passage in the book is that, under the head of "Artist and Mathematician," in which the author, referring to what he calls Inflexion, says:—

Now let us apply this principle to objects in space and see whether it will not give us some insight into the mean-

ing of a phenomenon which has hitherto appeared most mysterious—namely, the phenomenon of Gravity. Imagine that a solid ball is suspended in space, and that another ball is introduced some distance away from it. Would it not be most unnatural thing if the first ball was unaffected in any way whatsoever by the entry of the second? That would indicate a lack of order and of mind, an indescribable deadness in our universe, which it is extremely unpleasant even to contemplate. In that the first ball tends to approach the second it displays a consciousness of the other's existence and provides an instance of inflection.

Such writing conveys little meaning and expresses little sense, and together with much of the whole book might be eliminated with advantage. The residue expressed less dogmatically would afford the basis for a pleasant little book on the arts and other cognate subjects. Clear, logical, and keen analysis such as is displayed in Geoffrey Scott's "Architecture of Humanism" is a delight to read for every conclusion is argued and proved, and the statements made are outlined with scholarly care and without exaggeration. Here we are dealing with the book of an author who has chosen a canvas so large and ambitious that neither he or any man could adequately fill it. It is meant to appeal to an explain the sanity of the average man's outlook, but in doing so Mr. Tristram Edwards has reared up the structure of a new Theology of Art without providing it with any sufficient foundation.

## Illustrations.

THE REPAIRING OF S. CRANTOCK CHURCH, CORNWALL: THE SCREEN.—MARINERS' CHURCH, ST. IVES: FROM SOUTH EAST.—DUNEDIN CATHEDRAL: VIEW FROM THE NORTH-WEST.—NEW PARISH ROOM AND SCHOOL, ALL SAINTS, PLYMOUTH.—NEW PARISH BUILDING, HAYLE.—LANTEGLOS-BY-FOWEY, AFTER RESTORATION.

By the late EDMUND SEDDING (SEDDING & STALLYBRASS Architects). (See p. 174.)

## Notes and Comments.

### The Architectural Association.

A SPECIAL General Meeting of the Association (now incorporated) is to be held on Tuesday, March 15, at 6 P.M., to approve the By-laws as revised, but special attention is called to By-law 17 which it is proposed shall run as follows:—

*The Entrance fee of each member shall be two guineas. The Annual Subscription of members resident not more than 50 miles from Charing Cross shall be two guineas per annum; and of members resident more than 50 miles from Charing Cross one guinea per annum; but each member who was a member of the Architectural Association prior to January 1, 1891, shall pay an Annual Subscription of one guinea. All students in the Schools must be members of the Association.*

We are not surprised at the change as we have frequently wondered how it was that the Association was able to provide so amply and fully for the comfort and convenience of its members. Sometimes at other institutions we have wondered where all the money goes to; with the Association we wonder also, but the difficulty has been to understand how its finances can provide what is given. Good management can do much, but it cannot work miracles and we hope this change will effect what is wanted. We are equally sure it will meet with no opposition.

### A Sinister Conspiracy!

MR. GEORGE HICKS, president of the National Building Operatives' Federation, speaking at Canterbury said he wished to state definitely, with regard to the question of the 50,000 dilutees whom the Government were particularly anxious to force upon the building trade, that it was a scandalous shame to create hopes in the breasts of men that they would never be able to fulfil. It was impossible to put those 50,000 men at work. It was a "stunt" of Dr. Macnamara's, in order that he might

acquire the reputation of being able to employ all the ex-Service men. "We do not intend," said Mr. Hicks, "in any circumstances whatever to agree to the reintroduction of payment by results in the building industry. So far as I am concerned I would be prepared to empty the safe to the last halfpenny in order to resist such damnable thing being reintroduced into the industry. The poor ex-Service men are being used for the most sinister, deeper, and dirtier purpose of obtaining the system of payment by results."

It is an interesting commentary on the attitude of mind of a certain section of the community that it should be possible to describe payment by results in the above terms, for it is the system on which all must work if any country is to continue to exist as a civilised community. Even if men are paid by the hour, and good men only receive as much as inefficient men, the total result of the labour producing more than it costs is the one and only security against unemployment which we are told is the bugbear of the Labour world. The right thing is surely not to try to eliminate payment by results, but to see to the interests of all how it can be best effected.

### Housing by the Office of Works.

THE total number of houses undertaken since January 20, 1920, is 3,736 (of which 1,135 have been begun, and 11 have been completed to date), and the estimated total cost (including overhead charges) is £3,811,429. In many cases the figures included here provide also for cost of roads and sewers. Where this is not included the average cost per house is round about £1,000. The local authorities in the London area for which the Department is acting are: Camberwell, Poplar, Deptford, Lambeth, Shoreditch, Carshalton, Richmond, and Finchley; and little farther afield: Bedford, East Ashford, Sheerness, and Hove. Negotiations are now in progress with other local authorities for the erection of 3,513 houses. Inasmuch





THE ARCHITECT, MARCH 11th, 1921.



SCREENLESS PHOTO PROCESS, SPRAGUE HAYCOCK (PRINTERS) LTD 69 & 70, DEAN STREET, LONDON

THE REPAIRING OF S. CRANTOCK CHURCH, CORNWALL: THE SCREEN.

BY THE LATE EDMUND SEDDING (SEDDING & STALLYBRASS, ARCHITECTS.)



THE ARCHITECT, MARCH 11th, 1921.



SCREENLESS PHOTO PROCESS, SPRAGUE HAYCOCK (PRINTERS) LTD. 69 & 71, DEAN STREET, LONDON, W.1.

MARINERS' CHURCH, ST. IVES: FROM SOUTH-EAST.  
BY THE LATE EDMUND SEDDING (SEDDING & STALLYBRASS, ARCHITECTS.)

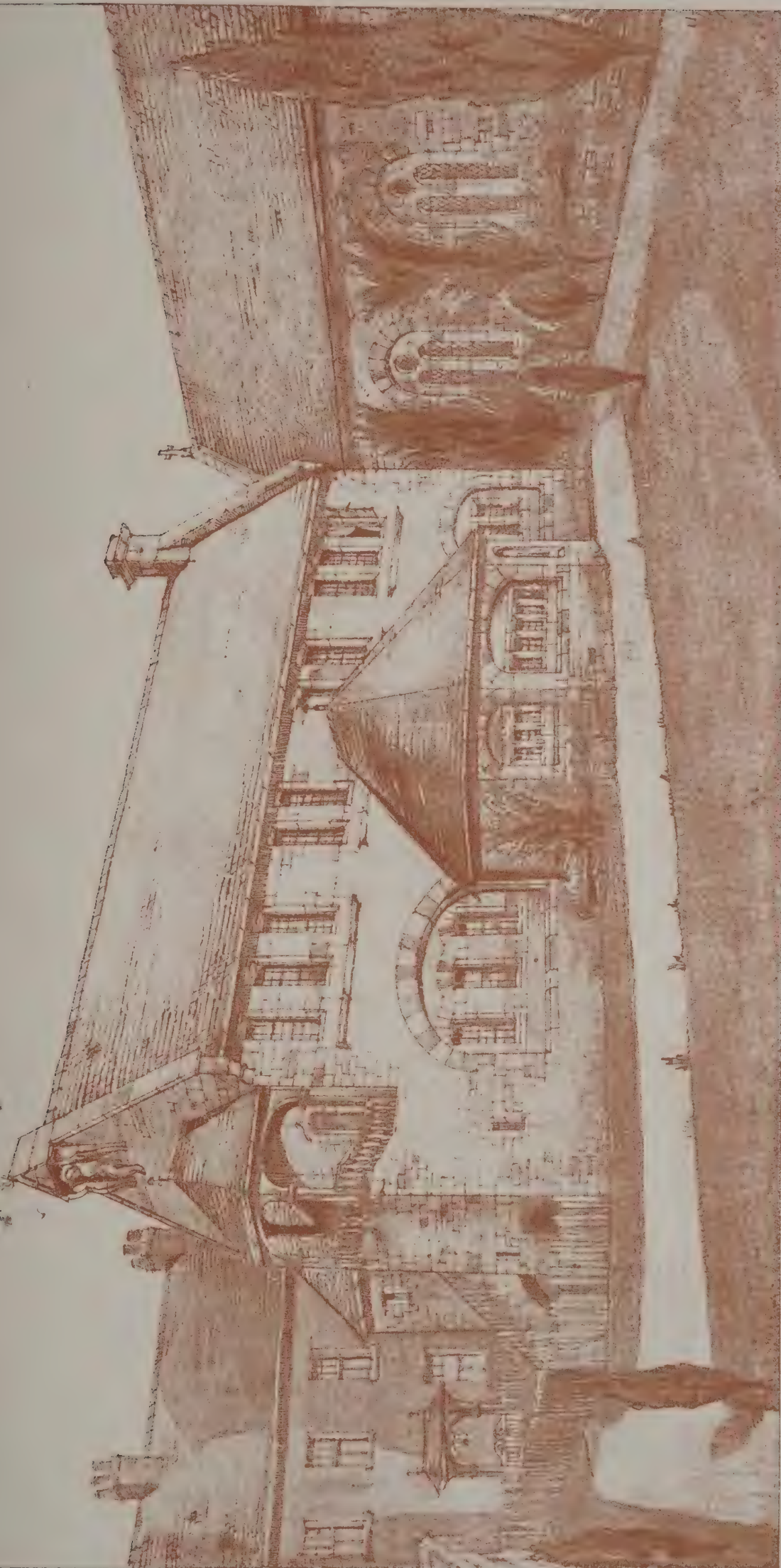












SCIENCELESS PHOTO PROCESS, SPRAGUE HAYCOCK (PRINTERS) LTD 69 & 70 DEAN STREET, LONDON W 1

NEW PARISH ROOM & SCHOOL, ALL SAINTS, PLYMOUTH.  
BY THE LATE EDMUND SEDDING (SEDDING & STALLYBRASS, ARCHITECTS.)





Arch.

UNIVERSITY OF ILLINOIS LIBRARY

APR 13 1921







SCREENLESS PHOTO PROCESS, SPHAGNE HAYCOCK (PRINTERS) LTD, 69 & 70, DEAN STREET, LONDON, W 1

LANEGLOS-BY-FOWEY, AFTER RESTORATION.

BY THE LATE EDMUND SEDDING (BEDDING & STALLYBRASS, ARCHITECTS.)





As the estimates have not in all cases been completed, the total figure of cost cannot be given.

We hope that the Committee appointed by the R.I.B.A. to enquire into this matter will be able to stay the hand of the Office of Works, and further that they will seek the help of the Building Trade Employers in any action taken, since they have a special interest in the matter owing to the fact that the Office of Works employs direct labour. The problem is a difficult one, since it can only be effectively attacked on the score of economy and reliable figures are usually difficult to obtain and are sometimes so manipulated as to be misleading. But this is the only really effective attack which can be made, since the public are not greatly interested in the advances of architects but are keenly alive to the importance of avoiding unnecessary financial burdens.

## The Expression of the War Memorial.

By P. W. Hubbard, M.A., A.R.I.B.A.

USKIN has classified buildings under five heads, one of which is entitled:

'Memorial—including both monuments and tombs.'

At a time when the country is being sprinkled with monuments of every description, it seems not out of place to make an inquiry into the effect that public memorials are intended to produce, and how they fulfil their various functions. Roughly speaking, two principal methods of commemorating the fallen have been adopted since the Great War, namely:

1. Those which combine an element of utility or benefit in their conception, or are established solely for use or pleasure.

2. Those which are designed to produce their effect by appearance only.

In this cursory review of the subject it is not the intention to hold a brief for any particular form of memorial, but rather to analyse the impression given by various types.

In choosing the form that a memorial should take, some are no doubt influenced by what they consider the wishes of the fallen to have been.

In all probability the dead would not have asked for any tangible or earthly reminder of their sacrifice, except to make an appeal on behalf of their dependants—an appeal that cannot lightly be neglected. In fact, it is so operative that the State has in part undertaken the fulfilment of this request. Furthermore, if those who have paid the supreme sacrifice could have known that memorial funds would have supplemented the regular government gratuities, the burden of their anxieties could have been materially lightened.

However, it seems that we may also be justified in being influenced by the judgment of the living in selecting the most appropriate manner in which to honour the memory of the fallen.

In dealing with endowments for educational and other purposes the effect is more personal in its operation and mainly appreciated by the beneficiaries themselves, rather than by the public in general.

In a lesser degree the public are indifferent to, say, funds that provide for the upkeep of beds in hospitals, or that eventually build homes for the widows and children of the dead.

This is an excellent form of memorial that, on the ground of common sense, is most estimable, yet, unfortunately, does not appeal so much to the imagination as far less worthy, but more ostentatious effort in bronze and marble.

If we approach the whole subject from the standpoint of the living and future generations, it seems natural to assume that the manner of commemoration inclines to the acceptance of "visible" memorials (used in the technical sense), in order to set on record in some permanent way the fact that certain brave men have fallen in battle for their King and Country.

To go a step farther, the memorial might fittingly express Victory, Sacrifice, Devotion to Duty, Heroism, or many other noble qualities, which might be readily interpreted by the average man in the street.

On the other hand, reason would seem to demand that the claims of unrelenting utility should not be set aside, when economy in all things is vitally essential to our national reconstruction. Who would grudge the money for memorial schemes being devoted to a hospital?

What is more fitting than that the widows and children of those who died in the war should enjoy the benefits of such an institution?

By the same token, why should not gymnasiums, recreation rooms, playing fields and the like be established? By indulging in this type of War Memorial we are confronted by another aspect of the case.

The effect produced by the recreation room or village hall is that a small section of the community is reaping the benefit of what should be a public sacrifice.

The local village council, who have for years desired a hospital, seize the occasion of the war for attaining their object. The parson who deems that his church should have a lych-gate does not lose this opportunity for exploiting the dead for his own purpose.

Heaven knows we need hospitals and houses, but these should surely be obtained by different methods. In one case a hall for dancing was suggested as a suitable memorial, together with a notice to say that it was erected in memory of the brave men of — &c.

Does not the fact that a notice is required proclaim the hall to be a lie?

Can the imagination perceive in this a memorial arising from its violated truth?

Let us think what such a memorial expresses: It says plainly "I am a dancing hall" or "I am a playing-ground, and nothing that you name me will alter the fact."

Will our children think of them in terms of awe, respect, and reverence?

Will future generations regard them as memorials, and beholding, be inspired by the example of the gallant men they commemorate?

Not necessarily by its obvious costliness of appearance or yet by its inherent beauty, but by its effect on the mind must a memorial be judged.

And this brings us to the question of whether the "useless" monument is desirable.

It has ever been condemned, and, perhaps, in some cases justly, on account of the waste of money it involves, while it serves no practical purpose.

Call it, if you will, the last flicker of barbarism, the final remnant of idolatry, that made us stand with bowed heads before the Whitehall Cenotaph; yet it is not to be denied that our human nature still craves for symbolism, and the higher the mentality the more symbolic become our representations of abstract thought. We, whom the tides of war have left high and dry on the grey rocks of reconstruction, still conscious of five years of war behind, and foreseeing calamities in the uncertain clouds of doubt ahead, find this to be an age when the meagreness of poverty must needs suffice; when the forces of circumstance demand that all the precious stones of effort and of sacrifice that we would gladly give for memory's sake, must be withheld, or perforce we have them not to give.

Is it only for the death of these heroes that we commemorate them? Surely it is their lives that must not sink into the vaults of oblivion.

In sooth their greatest service has been, writ in steel, so surely their deeds demand the lasting records of stone, of marble, and of bronze.

At Salisbury a meeting convened by the Dean appointed an Advisory Committee of laymen to assist the Chapter in matters relating to the Cathedral and its contents. Sir Cecil Harcourt Smith, Director of the Victoria and Albert Museum, said it was fitting that Salisbury should be the pioneer in this direction. It was a step which would probably have to be followed by other Cathedrals.



## London Art Galleries.

(All Rights Reserved.)

THE most interesting features of last week's London exhibitions were the spring exhibition of the Goupil Gallery, the new exhibitions at the Leicester Galleries and at the Greatorex Galleries, and the water-colour drawings at Walker's Galleries by Harry Goodwin, exhibited from March 2 to 21. At these last-named galleries in New Bond Street is now being shown a well-selected number of rare old coloured views in aquatint, more than 200 in all, among which may be noted specially the Windsor studies ("The Long Walk, Windsor," and "Windsor Castle"), drawn and engraved by W. Daniell; Debucourt's coloured aquatints of figures after Carle Vernet, with their memories of the close of the great Napoleonic struggle ("Les Anglais à Paris," "Adieux d'un Russe à une Parisienne," "Famille Ecossaise"); and R. Pollard's records of the sea fights of Nelson's days or earlier ("Victory over the French Fleet, August 1, 1798"), with which may be compared Pocock's "Hebrus and L'Etoile off Cape La Hogue, 1814." Of great artistic as well as topographical merit are Paul Sandby's drawings, engraved by himself or L. Wynne, of Severn-side,—*"Worcester,"* the old bridge at Shrewsbury, and *"Bridgenorth"*; and, again, the set of four Thames bridges engraved by Loutherbourn after Stadler, which include Old London Bridge and Westminster Bridge.

Mr. Harry Goodwin is, I believe, an elder brother of Albert Goodwin, R.W.S., and shows here some very charming studies of flowers in the English countryside (*"Gorsefield near Hastings," "Water Lilies, Grasmere," "An Autumn Tangle"*); his figures (*"A Letter from the Front"*) are frequently rather weak, and in many cases I thoroughly dislike the highly-decorated frames in which this artist seems to delight, but which have an awkward way (examples are Nos. 1, 28, and 41) of getting in the way of the painting.

At the Greatorex Galleries E. Arthur Rowe is showing this month water-colour drawings of *"Old-world Gardens."* It may be said that the artist has been happy in his subjects, for the gardens selected by him are those of the Villa Carlotta on Lake Como, perhaps among the most beautiful in the world; of Hampton Court, of which we may be justly proud, of Hever Castle, and Chequers, now the residence of our Prime Minister. I remember once taking a famous Italian critic round the Hampton Court Galleries, and years after he alluded to those gardens with enthusiasm; and we may remember what public indignation was aroused a few years ago by threatened official interference with their flower-bordered walks. Mr. Rowe is very successful in masses of beautiful blooms, such as his *"Rhododendrons and Azaleas, Villa Carlotta,"* and his *"Azaleas, Lake Como."* In his *"Lengthening Shadows, Chequers,"* we get a good view of the house, and can realise what a lovely old building, entirely English in character, this is; and the Golder's Hill Gardens, now open to the public, have supplied some charming subjects (*"American Pillar Rose,"* and others).

The spring exhibition of the Goupil Gallery consists of a careful selection of water colours and drawings in the Small Gallery, commencing with some brilliant Venetian studies (*"La Salute," "La Dogana," "Venice"*—this last a pastel) by H. B. Brabazon, drawings by Shannon, and two interesting Chelsea studies by Walter Greaves. The Large Gallery is given to oil work, and here are two fine works by John Sargent, R.A. *"A Vele Gonfi"* is a brilliant portrait-study of a woman's figure in black mantle, black gloves, black hat with white ostrich plumes—obviously a portrait, and full of splendid movement; while beside this is a little gem of this artist's brush in a study of the interior (I think the Sala del Maggior Consiglio, with Veronese's famous ceiling painting) of the Doge's Palace at Venice.

We do not generally associate W. Etty with interior

studies, but there is one of great merit under his name here, as well as one of his figure-subjects, under the title of *"Nude,"* a female figure of great attraction, who, possibly, judging from the winged boy standing beside her, may be intended for the Goddess of Love. Near this a landscape, with cool delicious grey tones, is under Corot; and the Boudin on the same wall—*"Les Jetées de Trouville, Marée Basse"*—is a little gem of this artist whom I have often mentioned in these notes. Going upstairs we come to the second exhibition of the Monahan Group, which shows more than a hundred paintings here. I am obliged to leave a more detailed notice of these till another time; but may mention to-day the studies of animals (*"Lioness Eating,"* and others), by E. M. Henderson; studies of rocks by Diana White, Ludov. Rodo's *"Roses,"* and compare the luminous *"Eglise de Bois-le-Roy"* by Maximilien Luce with two no less delightful paintings by Lucien Pissarro, *"Morning Snow Kew,"* and *"Michaelmas Daisies."*

On the same day with this last opened the Leicester Galleries Exhibition of R. Ihlee and Jaroslav Hnevkovsky. This last artist is from Prague, and in his foreword to the catalogue Mr. P. G. Konody tells us that "having spent five years among the natives in the interior of Ceylon, he has become more Eastern than Occidental in his appearance." With another young Czech artist Jaroslav started on a painting tour which carried them to Colombo, where they arrived there "they made straight for the interior"—their net possessions seem at this time to have been the paints and brushes, two guns, and about 30s. in cash—"and lived the life of the native, adopting the simple loin cloth as costume, and feeding on the booty of gun and rod." His companion, having caught malarial fever, left him after three years; but Jaroslav remained, and gives us his impression in the remarkable series of studies here shown. These are very decorative in their feeling: they do not look like direct impressions of the jungle, and were very probably painted on his return to Prague from notes and studies made in Ceylon. In them the Cingalese ladies appear (*"A Yellow Maiden," "A Yellow Venus," "The Bathing-pool,"* and others) in the costume of Eden, their golden-brown forms outlined against a background of palm-trees and jungle growth. We think, of course, of Gauguin in these, but there is nothing here on the level of Gauguin's colour in such a work as *"Une Tahitienne."* M. Hnevkovsky has had, however, wonderful experience, and has brought us back a most interesting record. The paintings here by R. Ihlee are very uneven: he is most successful in his *"Young Jewess"* and *"The black cattle,"* but his *"Odalisque"* near this last is crude and hot in colour; some of the drawings, such as the lithograph of *"Nude reclining,"* are correct, and show considerable promise. S. I.

## Art News of To-day.

AT Messrs. Christie's last week Mary, Lady Carbery having disposed of Castle Freke in County Cork, sent her old English and Irish silver, as well as her pictures, up for sale, among them being the *"Family Group,"* by Nicholas Maes, which on Friday last fetched 3,000 guineas; this I believe to be well in advance of previous prices for this fine Dutch artist. The date of this work, which is signed, is 1656, and I believe at that time the artist was still under the guidance of Rembrandt.

## Apology.

OUR attention has been called to the references we have made from time to time to our contemporary *"The Builder,"* and the Directors of that Journal, having taken exception to the article entitled, *"An Unpublished Book of Æsop. No. 4."*—*"The Wise Men and the Bydye,"* appearing in last week's issue on page 154, we recognise that the article contained statements which might be regarded as imputations, innuendoes, and suggestions, which ought not to have been made, and which, if so read, would be unfounded, and we unreservedly withdraw them.



## Royal Institute of British Architects.

ON Tuesday, March 1, Mr. Jay Hambidge gave a paper at a special meeting, entitled "Further Evidence for Dynamic Symmetry in Ancient Architecture," of which we give the following impressions:—

Had Dr. Johnson been present at Mr. Hambidge's lecture on March 1 he would probably have made the same remark as he did to another lecturer on a previous occasion, namely: "Sir, you have told us things which are new, and you have told us things which are true; but the things which are true are not new, and the things which are new are not true."

The audience, however, on this occasion, being reinforced by the Hellenic Society, took up a more sympathetic attitude. The Chairman for the evening was no less a person than Sir Charles Walston, who in his opening speech warned us against intolerance of any new theory, or remaining in an attitude of critical aloofness. He went on to say that Mr. Hambidge had an *idée fixe*, with which remark the audience undoubtedly concurred.

It was gratifying to find that our natural desire for taking notes had been anticipated by having typed copies pressed upon us. Possibly there may have been some among us who were struck by the significance of the fourth line of the fourth paragraph in these notes, which perhaps bears repetition, on account of the seeming fundamental truth that is expressed therein:

"If a side of one square equals 1, two sides equal 2." This concise statement may conceivably be the basic theme of design, which has been perceived alike by Phidias, Ictinus, and Mr. Hambidge.

The lecturer, who had made a life study of Greek Symmetry, spoke with evident knowledge of his subject, down to the smallest detail; and one could not but feel the force of arguments that were supported by figures of three decimal places and more.

Apparently Mr. Hambidge had not spared himself any pains in obtaining the most accurate measurements of the Parthenon, the Temple at Bassæ, and many others, with which he strengthened the position of his tenets and theories.

For over an hour we gazed at one slide, showing a complicated series of rectangles, and if the fact that the square root of five was 2.23606 left us cold the lecturer was in no way to blame.

We were at one time lost in a maze of figures, our whirling brains being dully conscious of "whirling-square-rectangles," and the constant recurrence of the magic number .236 in ground plans, stylobates, metopes, and all else.

The paper concluded with some excellent slides of the Bassæ Temple and floor of the Parthenon, which one could not help wishing had punctuated the arithmetical progression of the lecture at more regular intervals.

In the ensuing discussion the Chairman called upon Mr. George Hubbard, who immediately placed the onus of reply on his son, Mr. P. W. Hubbard. The latter referred to Pythagoras and Mr. Bligh Bond. His remarks may have been interesting, but were not of much importance; but our interest was stimulated by his asking Mr. Hambidge to demonstrate his theory by showing the method of ascertaining the symmetry of a Greek vase, which Mr. George Hubbard had lent for the occasion.

After Mr. Brearton had referred to the "grammar of art," Mr. Theodore Fyfe ably supported the lecturer; both these speakers evidently believed in some subtlety of art, comprised within the limits of dynamic symmetry.

The Chairman then held forth for some time, during which he encouraged the lecturer to continue his great work. Thus emboldened, Mr. Hambidge proceeded with a further discourse, in which he spoke fluently on Hindoo and Egyptian mathematical thought, and also stated how many Americans had been converted to dynamic symmetry after hearing him talk for one year on this subject.

He finally demonstrated his method of measuring Greek vases with the example which had been produced for the purpose.

On a second appeal to Mr. G. Hubbard by the Chairman, he referred to the similarity of the orientation of the axes of Egyptian monuments, and stone alignments on Dartmoor. Sir Charles Walston was able to corroborate these statements by his own observations of the Greek temples.

The meeting duly terminated about 11 P.M., after signifying its warm appreciation of Mr. Hambidge's work.

AN extra meeting of the Royal Institute of British Architects was held on Wednesday, March 2, when Major Edward P. Warren, F.S.A., F.R.I.B.A., read a paper, illustrated with many lantern slides as well as by a number of coloured drawings made about 1870 by Mr. Lionel Muirhead, entitled,

### "Mesopotamia: Architectural Impressions of a Recent Tour."

Mr. Warren went to Mesopotamia to advise as to the military cemeteries. Landing at Basra at the beginning of December 1919 he proceeded up the Tigris. Not far above Kut there is to be seen on the dead flat of the left bank the startling silhouette of Ctesiphon Arch, the sorry remnant of the great palace of the Chosroes.

In the drawings of Mr. Lionel Muirhead, made in 1869, the greater part of the façade, the arch of the great hall, and the fronts of its wings, are shown intact. Mr. Phené Spiers, in his account of Sassanian architecture, says that the right hand or north-eastern wing, was blown down in 1890. There was now almost no brick débris on the ground, but much indubitable Ctesiphon brick in village walls, culverts, and the tombs of a neighbouring native cemetery. However, during the ages that have succeeded the sack and ruin of Ctesiphon—a large town with extended walls and many buildings—similar bricks were probably to be had for the mere getting. All along the base of the left or south-west wing, which alone remains, the bricks for a depth of about a foot—and they are mostly about 12 inches square by about  $2\frac{1}{2}$  inches to 3 inches thick—have been picked out. The bricks are of a quiet red colour, much like some of our seventeenth-century bricks, and with a similar rough face—very hard, admirably burnt, and set in admirable cement.

The palace was built by Chosroes I. Fergusson gives the date as about 550 A.D., and since the first Chosroes' reign was from 531 to 579, that is probably about right. The great vaulted hall was about 160 feet long by 83 to 84 feet wide, and vaulted with a roughly elliptical barrel vault 95 feet high to the crown of the arch. The total width of the palace front was about 312 feet, and nearly or quite 110 feet high. The side walls of the hall proved to be 23 feet thick. The remaining front wall is about 16 feet thick. The great arched entrance of the hall appears to have been always open. It has been conjectured that it was screened by a great curtain.

It seemed to Mr. Warren that the hall, facing east by south as it does, could only be penetrated to the rear end by the low early morning sun, and its builders were sun-worshippers, so that the first rays of the risen sun would be welcome. During the hot weather and after early morning, almost the whole of the interior would be in shade. As the hall probably served not only as a magnificent vestibule to the various large chambers of the palace, but as a hall of audience and for feasting, the necessity of shade under the fierce sun of Mesopotamia is obvious.

The purpose of the ten side-chambers, about 80 feet long by 20 feet wide, and the method of lighting and ventilating them, is a matter for conjecture. They may have been guard rooms, treasure rooms or sleeping chambers for the winter, or even prisons; some of them may have contained the staircases leading to the upper floors. They have now entirely disappeared, and it is only the bonding of their walls to the outer hall walls, and their foundations, that indicate their form. The much-arcaded front has no window openings. It is a mere dead façade of imitative Roman design.



The construction of the great vault is very interesting, and affords a fine field of conjecture as to the methods employed in building it. It must be remembered that timber of a kind or of lengths sufficient for scaffolding in the Western way, and of planks for centering, were probably impossible to obtain. It is, therefore, extremely probable that, as has been conjectured by several authorities, it was built without anything that we should call centering.

M. Dieulafoy's section shows that the arch rings all incline towards the inner or north-west end of the hall, though, according to Mr. Warren's view, he makes the angle of inclination much too acute. The fact that the rings do incline leads inevitably to the supposition that the thick end wall was first built, and that each succeeding ring leaning back against its predecessor received so much support that centering, in the strict sense, could be, and was, dispensed with.

The six parallel rows of holes on each side of the vault have given rise to much conjecture. Mr. Phené Spiers thinks they were holes to admit the chains suspending lamps, as it is stated that in the sack of the palace in A.D. 637 some 100 silver lamps were amongst the booty. The fact that several, though by no means all, of these holes contain earthenware tubes, lends colour to this. Mr. Warren's own conjecture is, that whatever their subsequent use, they may have been originally the holes into which scaffold poles were fixed, "punnet holes," and their regularity of spacing horizontally and vertically abets this view. Scaffolding of some sort there must have been, and this quite probably consisted of palm stems, which are still occasionally used for this purpose, and for rough bridges, &c., in Mesopotamia.

These could hardly exceed from 35 to 40 feet in length, and would need stiffening by a good deal of cross-bracing, but it seems extremely likely that the vault was stayed from the scaffolding, without centering, and that the admirable quality of the cement used, with this assistance, secured the process of building. The Persians of the Sassanian dynasty, if they did not employ Arab workmen, as they probably did at Ctesiphon, most likely relied to a great extent, as do the Arab builders of to-day, on the wonderful sticking power of their cement, the cement used nowadays—"jus," or roasted marl and sand.

It is obvious that in the sixth century good fuel was obtainable for firing at Ctesiphon, as it must have been two thousand years before that at Babylon, its absence to-day, when all woods and forests have long ago vanished, is one of the main reasons for the softness and friability of the pasty-looking modern Arab brick. There is no available fuel but desert scrub, which is borne on donkeys frequently from a long distance. Another reason is the insufficient puddling of the clay, which is full of salt or saltpetre. You see it gleaming like hoar frost over the dry earth along the Tigris. As to mortar, there is plenty of limestone at Hit, on the Euphrates, and also, further north and west, in the Jebel Hamrin ridge, and round Mosul, but it is difficult to convey in quantity, and therefore costly, so that, at a little distance from a navigable waterway, building is apt—in Mesopotamia—to be very poor, and the average native material is mud for walls, and a mud-covered roof.

Ctesiphon, though now a mere fragment, is still the most striking and interesting ruin in Mesopotamia, and the most striking vestige also of the short-lived Neo-Persian Empire.

The distant view of Baghdad, with its large square-topped houses and its minarets rising above the palm-tops along the banks of the broad river, is imposing. But its river aspects are its only stately ones. Intensely picturesque it is at every turn, and containing many beautiful domes and minarets, but most of its streets are very narrow, and some of them very squalid. There are a number of poorly built, though sumptuous, palaces, abutting on shabby lanes, but always containing fine inner courts and large well-windowed rooms—all, however, in that dull, slightly Europeanised Oriental manner of

uninspired architecture that stamps the dominance of Turkey. This great town is pervaded by the out-at-elbows, devil-may-care effect which that dominance seems to foster everywhere. Its bazaars are very extensive labyrinthine, interesting and picturesque in a most fascinating degree. Colour and light, shifting and changing gleams of intense sunlight stabbing through dusky gloom, and falling upon rugs and silks, brilliantly dyed garments, shoes and slippers, amazing fruit stalls copper and brass, earthenware, glass and coarse jewellery arms and bric-a-brac; crowded little cafés at every turn and larger ones huddled into dusky ancient vaulted chambers, where divans and benches are occupied by serenely imperturbable, dignified, charmingly dressed gentlemen, quietly smoking their houkahs, apparently with perfect conviction and content. All this forming the banks, as it were, to an ever-changing river of diverse and diversely clad humanity—Arabs, Kurds, Jews, Persians, Syrians and Negroes, with, of course, the exotic intermixture of Tommy, Jack, and their Indian brothers-in-arms in various shades and degrees of khaki. Vociferous, cheerful, quarrelsome, haggling and chaffering, the crowd is perforated and pushed aside intermittently by slouching, supercilious camels; daintily treading, gaily caparisoned Arab horses with their handsome and dignified riders; or hustled by the hideous tooled and scintillating bulk of incredible motor cars, bearing British officers and their ladies. Every little art and craft is carried on in or outside of small open shops—copper and brass work, wood-turning and furniture making, sweetmeat making and cookery. Fine dust rises everywhere and dances in the sunbeams, and a mixed, musky oriental smell concords with the mixed oriental noise.

Of fragments and remains of antiquity Baghdad has a great deal, but very generally they are hard to find. At the citadel, which is mostly modern and Turkish, there are the remains of the palace in a few rooms, with extraordinarily finely and delicately cut brick-vaulted ceilings of the thirteenth or fourteenth centuries. There are the remains of the great College or Madrasat-al-Mustansariyah, built by the Caliph Mustansir Billah in A.D. 1236, ruinous and partly used by the Turks as a custom house, which still retains a beautiful and elaborately carved brick doorway of great height, only possible to see by groping into a dusky café below and climbing on to a flat house-roof above, near its apex. There are old vaultings, columns, &c., and ancient bricks and stones and the like built into cellars and serdabs, which may be of Haroun-al-Raschid's time, or earlier. These are extraordinarily difficult to date, except by a most accomplished expert.

The mosques are, several of them, of the fourteenth century or older, but nearly all rebuilt or made over. Many of these, happily, have beautiful blue-tiled domes and graceful minarets, sometimes also covered with glazed tiles—mainly blue, but often, and, with happier effect, having tiles only on their little domes, or in charmingly placed bands round their galleries or necking.

On the outskirts of Baghdad are two buildings of an interesting and unusual type, both of them tombs. That of Zobeide, the beautiful and favourite wife of Haroun-al-Raschid, on the right bank of the Tigris, and that of Shibab-al-Din Umar Suhrawardi on the left bank, and in the northern outskirts of the town. This is a brick structure cemented over. As to its strange, rather vegetable, conical roof or spire it really suggests a long cone. It was built at the end of the eighth century, probably after Haroun, who reigned from 786 to 805 A.D.

One of the most interesting buildings in Baghdad, or indeed in Mesopotamia, is variously known as the Khan Ortmah, or the Auqf Khan, a superb brick warehouse for storing merchandise brought from a distance by caravan or boat, and built in 1359 by Marjan ibn Abdullah ibn Abdul Rahman, a freed slave of a sultan, who became rich. He founded this khan as an endowment for the Marjan mosque near it, which was built two years earlier at his cost, and beneath whose dome he is buried.

The roof is very interesting, and resembles that of the ruined palace of Taq-Eiran in Persia, being a brick barrel





A LOUIS XV. LIBRARY TABLE.

In the present season, one of the most important sales at Messrs. Christie, Manson and Woods, was that of the beautiful Louis XV. and Louis XVI. furniture, from the collection of Mr. King, sold on February 17, when the Louis XV. library table, of which we give here an illustration, was bought by Messrs. Duveen for £3,150; but

scarcely less important will be the sale of Primitive Pictures and Early English Portraits on the 18th of the present month, while in April a remarkable collection of Greek and Roman antiquities will come under the hammer in these famous sale-rooms.

vault intersected by a double tier of dormer windows at intervals, reducing the roof practically to a series of broad transverse arches, between which the upper dormers are carried by cross arches, the only extra light, plus perpetual ventilation, being the brick-latticed opening at one end, and a small high-placed window at the other. This is really a noble galleried hall. It would make an admirable church. Along its sides are two floors of lock-up chambers for merchandise, the upper rooms reached by the gallery. Externally it is so built up against and smothered by the shops of the bazaars that little but its very odd-looking roof is visible.

Major Warren then proceeded to give a brief account of other towns, such as Kazimain, Samarra, Mosul, Babylon, and Hit.

At the conclusion of the lecture Mr. R. I. Money described the Hindie Barrage and the diversion of the River Euphrates.

Mr. Lionel Muirhead described in detail the numerous drawings which were hanging on the wall.

Sir George Scott Moncrieff proposed the vote of thanks, which was seconded by Sir Goscombe John, R.A., and carried unanimously.

## South Wales Institute of Architects. Central Branch.

At the annual general meeting of the above, held at the Institute Rooms, 6 High Street, on February 25, the following officers were elected to serve on the Branch Executive Committee:—*Chairman*, Cecil Wilson, F.R.I.B.A.; *Hon. Sec.*, Ivor P. Jones, A.R.I.B.A.; *Hon. Treasurer*, H. Teather, A.R.I.B.A.; *Members*, C. Alwyn Lloyd, F.R.I.B.A., P. Thomas, O.B.E., A.R.I.B.A., E. C. M. Willmott, A.R.I.B.A., Sidney Williams, M.S.A.; *Associates' Representative*, Colin L. Jones.

Messrs. Wilson, Lloyd, Willmott, Williams and Colin L. Jones were elected as Branch Representatives on the Council of the South Wales Institute of Architects.

## Royal Academy Ateliers.

SHORTLY before the War a few architects, enthusiasts in education, formed the Beaux Arts Committee to promote improved methods of architectural training in Great Britain, and, having secured the patronage of the Société des Architectes Diplomes par le Gouvernement de France, and the personal support of a number of distinguished French and English architects, with the assistance of The Society of Architects, established in London the First Atelier of Architecture in Great Britain.

The outbreak of war, just as the Atelier had overcome the opposition which drastic reform always meets with,

caused a suspension of activities while the patron and students were on active service.

In the meantime The Society of Architects built and equipped a new Atelier attached to their headquarters, at 28 Bedford Square, London, where the members and friends assembled last week to welcome Monsieur Chaires, the Patron, now happily recovered from his wounds, and the other survivors of the original band of students, and to make arrangements for resuming the work.

The President of The Society of Architects, Sir Charles T. Ruthen, O.B.E., welcomed Monsieur Chaires on his return, and congratulated the Beaux Arts Committee and the Society in having secured a continuance of the services of so able an architect to carry on and extend the traditions already established in the Atelier.

Its pioneer work, under the able direction of Mr. Arthur Davis, F.R.I.B.A., to whom the Atelier owed so much, had been recognised by its inclusion amongst the Royal Academy Ateliers, together with those Ateliers since established by other architectural bodies.

It was announced that the first twelve-hour *esquisse* for a monthly *projet* would be held on Saturday, March 12, and on Sunday, March 13, in the Atelier, at 28 Bedford Square, W.C. 1. All members of the Atelier who have paid their subscriptions are eligible to compete upon payment of the usual fee. The programme will be set in conjunction with the Architectural Association and London University Ateliers.

## Forthcoming Events.

*Friday, March 11.*—London Society.—Annual General Meeting at 18 John Street, Adelphi. Paper by Mr. I. G. Gibbon, C.B.E., entitled "Zoning and Town Planning." 4 P.M.

*Monday, March 14.*—Royal Institute of British Architects.—General Meeting at 9 Conduit Street, W. Paper by Mr. H. Percy Adams, F.R.I.B.A., entitled "Cottage Hospitals." 8 P.M.

—Bristol Society of Architects.—Paper by Mr. G. H. Oatley, F.R.I.B.A., entitled "A Few Impressions of American Buildings."

*Tuesday, March 15.*—Architectural Association.—Special General Meeting at 34 Bedford Square, W.C. 1, to approve the by-laws of the Association as revised. 6 P.M.

*Wednesday, March 16.*—St. Paul's Ecclesiological Society.—Meeting at St. Andrew's Court House, 7 St. Andrew's Street, Holborn Circus, E.C. 4. Paper by Mr. A. J. Mason entitled "Some Interesting Churches round London." 8 P.M.

*Thursday, March 17.*—Society of Architects.—Meeting at 28 Bedford Square, W.C. 1. Paper by Mr. Hope Bagenal, A.R.I.B.A., entitled "Acoustics." 8 P.M.

—Illuminating Engineering Society.—Meeting at 18 John Street, Adelphi. Discussion on "Motor-car Headlights: Ideal Requirements and Practical Solutions." 8 P.M.



## The Late Edmund H. Sedding.

(See Inset Illustrations.)



ADDITIONS TO "ALVERTON," TRURO: SOUTH FRONT.

The late EDMUND SEDDING (Sedding and Stallybrass), F.R.I.B.A., Architect.

MR. EDMUND H. SEDDING, who died last month, gained in 1884 the first R.A. medal for measured work, and in 1885 the R.I.B.A. first medal for measured drawings. Four of the best measured drawings—namely, of the steeples of Grantham and St. Magnus, London Bridge—are hung on the walls of the black-and-white room, South Kensington Museum.

In 1886 he took the English Travelling Studentship for design at the Royal Academy, and in the following year was awarded a Special Pugin Medal for sketches.

He was articled to John D. Sedding, the well-known ecclesiastical architect, and upon his death in 1891 set up an office in Plymouth.

He restored the churches of St. Keverne, St. Mawgan-in-Meneage, St. Blazey, Markam Church, Lansallos, St. Ives (partial), St. Erme, Falmouth Parish Church, Morvah, Tremaine, Chacewater (reconstruction), Lanteglos-by-Fowey, and St. Crantock (the two later schemes were completed).

Large additions were made to the Home of the Epiphany at Truro, and later the chapel was carried out from his design. The same year, 1907-8, Lis Escop was enlarged and the chapel added during the episcopate of Bishop Stubbs, for whom he also designed the diocesan staff. The crook and figures were executed by George Sedding (killed in the war). The wood for the staff was provided by the late Bishop from the old Ely stalls. At St. Germans Priory Church the great East window and the massive West door with its bronze work was carried out for the Countess of St. Germans. Additions were also made for Ladock Church. The towers of St. Gennys, Cardynham, and Fowey were repaired. The design for the new Training College chapel was carried out about the same time.

"Hengar," the seat of Sir William Onslow, Bart., was designed anew after the disastrous fire, when a valuable ring was found among the debris encased in molten glass.

Careful restorations of the old Cornish screens were made at St. Madron, St. Winnow, St. Budock, and the splendid coloured example of a sixteenth-century type at St. Buryan, where the detail is seen transfuse with the Renaissance.

New screens were designed for the fine churches of St. Mary Magdalen (Launceston), Fowey, Stratton, St. Crantock, and St. Erth. In the latter church the south chancel aisle was very elaborately fitted up with reredos, altar roof screens, and carved benches in memory of the Hawkin family. In one bench-end a careful portrait of Bishop Stubbs with mitre and staff is depicted in high relief.

In Devon he restored the churches of Broadhempston, Marwood, Dartmouth, Sparkwell, reconstruction of Princetown Church, and Kingston, and the elaborate reredos at Ermington; an important screen-work designed by him at St. Mary Tavy, Shaldon, Plympton. St. Mary church memorial to Lord Morley of Saltram and families.

The large new church of St. Mary, Highweek, Newton Abbot, was won in competition, and was built at cost of about £10,000. In 1910 the drawing was hung in the Royal Academy.

In Somerset complete restorations were made at Mark, Weare (for Mrs. Luttrell, of Badgeworth Court) and Pawlett.

In Norfolk he partially restored the churches of Haddiscoe and Wheatacre, and in Suffolk the church of Great Bricet, in Essex the Parish Church of Rayleigh and Bowers Gifford.

In 1906 the Primate of New Zealand, Bishop Nevill, who was in England, selected Mr. Sedding's design for his proposed new Cathedral of Dunedin, and in 1908 he was invited out to see the site, which is in a commanding position, with a slope of no less than 22 feet in the length of the building, which is about 220 feet long. The original design has been entirely altered, and the nave has already been erected. The full designs of the cruciform building, with a massive central tower, have been provided. Different kinds of Oamaru stone have been used for the nave and vestries, which are underneath, and all other materials have been utilised from the Colonies. The cost of the nave was about £30,000. Over the West door effigies of Bishop Selwyn, Bishop of Harper, and Bishop Nevill have been placed in niches, executed by the firm of Rashleigh Pinwell, of Plymouth.

The consecration ceremony took place during the latter half of 1919, when a large representative body from all parts of the South Island were present.

In 1911, owing to failing eyesight, Mr. Sedding took into partnership Mr. Reginald Wheatly, A.R.I.B.A., and on the resignation of the latter in 1914 Mr. Basil Stallybrass, who carries on his practice in Plymouth.

MESSRS. CHARLES SMITH & SON, architects, Reading, have prepared plans for a Nurses' Home which it is proposed to erect in the grounds of the Royal Berkshire Hospital, Reading.



# The Mosque of Kutb-ud-Din at Delhi.

By Ernest F. Allnutt.



Columns of Jain Origin.



MOSQUE OF KUTB-UD-DIN.  
Columns Having Fine Detail.



Vista of Columns showing Mortised  
Stone Ties.

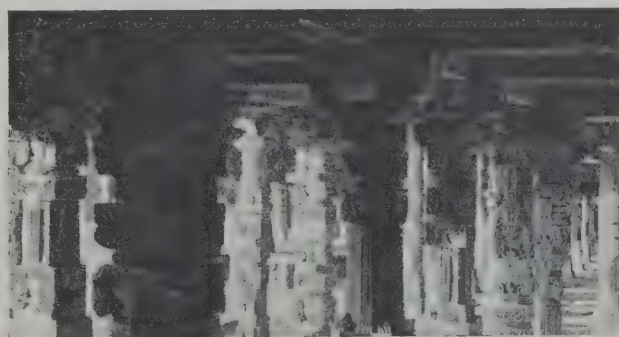
AROUND the eighth Delhi that is rising extend, over an area of roughly forty-five square miles, the ruins of the Delhis that were. Much that remains consists of walls and fragments of fortifications which, while of great interest to the archæologist, the historian, and the military engineer, are comparatively unimportant from the architect's standpoint.

It is fortunate, therefore, that among the best preserved there should be a group of buildings, partly ruined and partly entire, exemplifying one of the most instructive periods of architectural development in India. These buildings are situated about eleven miles from the present city and represent between them the architectural achievements of the first of the Muhammadan conquerors, thus enjoying the distinction of being the oldest Muhammadan structures on Indian soil.

As now seen the buildings are the remains of the great mosque commenced in 1193 by Kutb-ud-Din Aibak. Originally a slave, and subsequently a General during the invasion of Muhammad Ghorî, Kutb-ud-Din became Viceroy of the captured Hindu city when Muham-



MOSQUE OF KUTB-UD-DIN.  
Jain Columns with Architrave of Stones of Buddhist Origin.

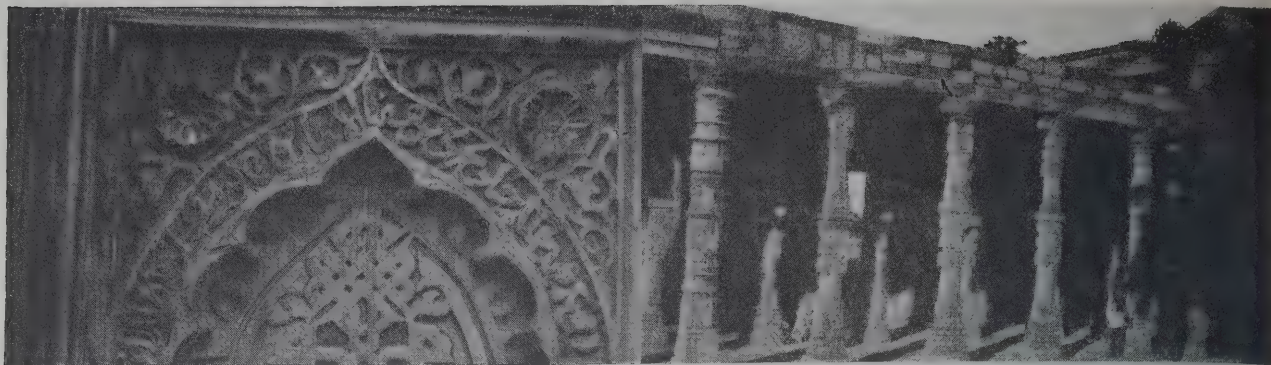


MOSQUE OF KUTB-UD-DIN  
A Group of Capitals.

mad pushed his military enterprise farther afield. On the death of Muhammad Ghorî without heir in 1206, he became ruler of Muhammadan India, and the first of the dynasty known as the Slave Kings. The mosque he erected—the first Moslem sanctuary to rise in India—was a building of great size, as may be gathered from the fact that the *liwan*, or sanctuary, was 135 feet in length. Its ruins are much venerated by the faithful, to whom it is a favourite place of pilgrimage.

Its peculiar interest for the architect centres chiefly in the manner of its building. The Mussulman conquerors naturally found the Delhi of their day crowded with temples, and in consequence were at some loss for a suitable site within the city limits. They determined,





DURGAH OF ALTAMASH.  
Detail of Mihrab.

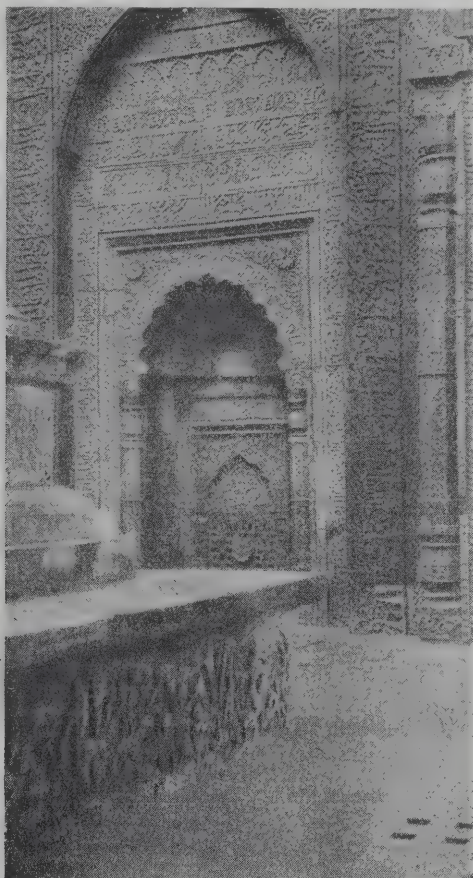
MOSQUE OF KUTB-UD-DIN.  
Showing Size of Columns, about 15 feet in Height, with Base Diameter of about 3 feet.

therefore, to plant the proposed mosque upon the site of a number of Jain temples, which were accordingly demolished. But the materials lying at hand were not wasted. They were incorporated in the new structures and must have added greatly to their beauty. Moreover, only Hindu masons were available for the work and these brought to the embellishment of the alien mosque a wealth of decorative detail eminently Hindu in style, but none the less admirably adapted to its novel purpose. The result was a mosque of the stern lines that mark early examples of what is known as the Pathan period, overlaid with a mass of ornament of that intricacy beloved of the Hindu carver. That the totality of effect must have been very fine the existing fragments are at least sufficient to testify.

The quantity of material utilised in the completed structure was so considerable that it can have been acquired only by wholesale havoc among the pre-existing temples. The walls are full of sculptured and inscribed fragments—some of them of Buddhist origin—giving support to the supposition that the Hindu temples were themselves composed of the stones of still earlier Buddhist shrines. But the main interest to-day is found in the rows of sculptured columns that compose what

remains of the cloister that formerly enclosed the quadrangle before the *liwan* of the mosque. These are of great beauty and, on the whole, well preserved. They are probably the spoil of Jain temples and were regarded by Fergusson as dating from the ninth or tenth century A.D. A great number of such pillars formerly existed, as five rows of them are said to have supported the roof of the *liwan*, and when the original buildings were extended under Altamash (1210-36) the sacred enclosure numbered over 600 columns. Those now to be seen are commonly alluded to as the "Columns of Prithvi Rai." Prithvi Rai was the last Hindu King of Delhi, from whom the throne was wrested by Muhammad Ghori, but, beyond the fact that they were in existence in his day, he cannot be regarded as having any connection with them.

Besides these fine columns, the mosque precinct includes the durgah of Shams-ud-Din Altamash, who succeeded Kutb-ud-Din, and the splendid Kutb Minar. The durgah is the oldest Moslem tomb existing in India.



MIHRAB OF DURGAH OF ALTAMASH.

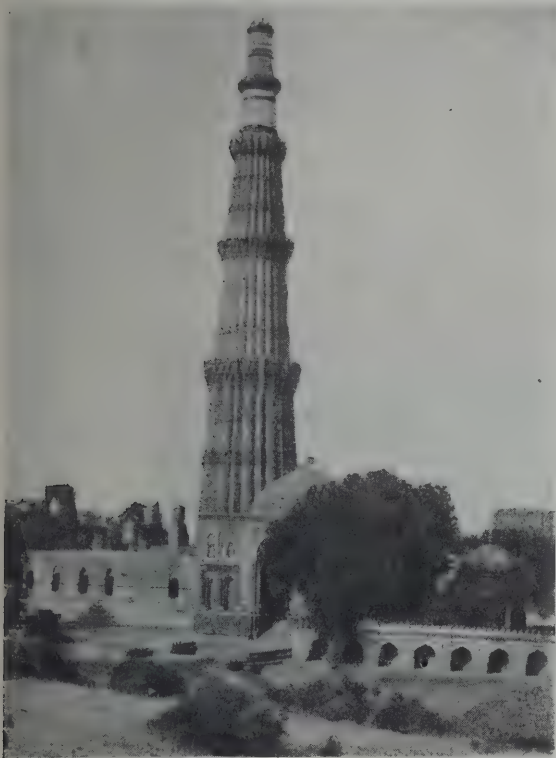


DURGAH OF ALTAMASH.  
Detail.  
Showing Treatment of Triangular Space caused by Corner Arch to Carry Dome.

Like the mosque, it is constructed of red sandstone relieved with white marble and is roughly square, the tomb occupying the centre of the enclosed space. It is now open to the sky, but there is reason to believe that it was originally roofed, though tradition ascribes its condition to the wish of the ruler whose monument it is. The walls are covered with intricate arabesques and geometrical designs, the carving being remarkable for its vigour.

The Kutb Minar was commenced by Kutb-ud-Din in A.D. 1200, and completed as far as the third of its five storeys by Altamash, the remaining two storeys being added by Firoz Shah Tughlaq about a century later. It is 238 feet 1 inch in height, with a base diameter of 47 feet 3 inches. At the summit the diameter is about 9 feet. The three lower storeys are of sandstone





THE KUTB MINAR.

laborately carved with scrolls repeating verses from the Koran. A companion minaret of even greater proportions was begun in A.D. 1311 by Ala-ud-Din, but, after height of 87 feet had been attained the project was abandoned. The unfaced rubble core of this abortive effort may still be seen.

## Correspondence.

### The Architectural Association and its Needs.

To the Editor of THE ARCHITECT.

SIR,—Mr. Selfridge's address at the Architectural Association on Commercial Architecture received wide notice in the public Press, and it is perhaps fortunate that Mr. Selfridge tactfully confined his remarks to the shortcomings of commercial patrons.

It is undoubtedly true that ignorant or indifferent patrons restrict the opportunities of architects, and may prevent them doing the best work that they are capable of; but can this be made an excuse for really bad work? Short of ignorant and dictatorial interference in matters of design on the part of the client, and weak acquiescence on the part of the architect, I cannot see that the client can be held responsible for really bad design.

If all architects were fine designers in addition to their other necessary qualifications, it would be impossible for patrons to find architects capable of erecting bad buildings.

It is interesting to notice the quality of architecture produced in this country during the period of individualism which has prevailed now for nearly a century, during which every man has been encouraged to "express his individuality" in any style, or lack of style, he chooses. That no individual work has been done no one can deny, but these efforts stand out as exceptions, and the average quality of work has been extremely poor, and far below the standard reached in previous ages.

I attribute this to lack of collective effort. The fine work of past ages was produced when tradition was a living force, and tradition seems to me to be collective effort and collective thinking; architects worked on parallel lines, were inspired by the same ideals, and accepted the work of their predecessors as a starting-point for further developments; the result was cumulative.

In science we have these conditions operating at the present day; such as, for instance, mechanical engineering. Anyone who has watched a large complex machine at work cannot but feel astounded at its amazing complexity, and wonder how the brain of man is capable of such ingenuity. Yet this is not and could not be the work of one man's inventiveness; it is the cumulative result of many men's

work extending over generations, every individual adding his small contribution, and in the end producing a result far beyond the power of a single individual to conceive.

In architecture independent individualism has had a good run, and has given us so much bad architecture that it seems necessary to look about for new methods. Is it not time to change our system, and to get back to collective effort? This is not possible under the pupilage system at present, because every office ploughs its lonely furrow and goes its own sweet way, regardless of what others are doing; but it is to large schools, such as that at the Architectural Association, that I think we may look for an improvement in this respect, because here we do get collective effort and collective thinking.

A school forms a tradition of its own, and when the students take their places in the profession as practising architects, we shall have groups of architects trained under similar conditions, inspired with common ideals, and influenced by a school tradition common to them all.

It is too early yet to see the result of this system in England, but judging by the results obtained in America, where this group education has been in longer operation, I feel confident that as soon as it has been given time to make its influence felt, the general average quality of architecture in this country will very considerably improve.

For this reason alone the Architectural Association school seems to me to deserve the whole-hearted support of the profession, and indeed of all interested in the welfare of architecture.

It is the largest architectural school in the country, it is run entirely by the architectural profession, and it is now compelled to issue debentures to the tune of £20,000 to pay for absolutely necessary extensions of premises. Need I say more?—Yours, &c.,

G. GILBERT SCOTT.

7 Gray's Inn Square, London, W.C. 1,

March 4, 1921.

### Ventilation of Picture Theatres.

SIR,—In the current issue of your publication we read with interest the letter from Mr. B. G. A. Smith regarding the ventilation of cinema theatres.

It is exceedingly interesting to us that this question is now receiving serious consideration, and that the health and comfort of the public is of more material importance than the majestic beauty of the place.

We have recently completed a scheme for atomising an efficient deodoriser into the atmosphere of public halls, and demonstrated this for the first time in public at the recent Cinema Accessories Exhibition.

The method is one that can be worked in conjunction with any ventilating scheme, and the advantages should be readily recognised by the architect. The system is simple and is controlled automatically. It consists of a series of atomisers placed in convenient parts of the building, and in some cases the electric-light brackets can be utilised for holding the atomisers; high-pressure air distributes the deodorising liquid.

To architects who are at present engaged on any plans, if they will communicate direct with us, we shall be pleased to supply them with full information to enable them to complete their schemes.—Yours, &c.,

THE AEROGRAPH CO., LTD.,

W. B. MAKINS, Director.

43 Holborn Viaduct, E.C. 1.

March 9, 1921.

### Competition News.

THE Bognor Advertising Committee offer a premium of ten guineas for the accepted design for a poster advertising the seaside town, such design to become their copyright. Competitors should send in their sketches not later than March 31 to Mr. Joseph Jubb, 68 High Street, Bognor (Sussex).

SIR JOHN ROSS, Dunfermline, chairman of the Carnegie United Kingdom Trust, in moving the adoption of the Trust's annual report, said that, owing to the trouble in the building industry during the past year, many of the proposed building schemes had not been carried out, with the result that their annual expenditure had been greatly curtailed, resulting in a saving of £95,000. However, he hoped that, with a return to normal conditions, they would be able to carry out their promises to construct new institutions, costing in all £500,000.



## Notes from Ireland.



GENERAL VIEW OF SACKVILLE STREET, DUBLIN, FROM O'CONNELL BRIDGE.

WITH the exception of a few of the larger buildings, the reconstruction of Sackville Street, Dublin, and the surrounding streets, destroyed during the rebellion of Easter week 1916, is now complete. As these remaining buildings are not likely to be finished for some time to come, it may be of value to note what has been done in a rather interesting scheme of urban reconstruction on a large scale, and, incidentally, what has been left undone. It will be remembered that on Easter Monday, 1916, like "a bolt from the blue," the armed rebellion, organised by the Sinn Féin party, broke out suddenly and entirely unexpectedly. A couple of years previously Sir Edward Carson's party in the north-east of Ulster had organised, armed themselves, and entered into a covenant to resist by force of arms any form of Home Rule in Ireland. Not to be outdone, the Nationalists of the North, South, East, and West enrolled themselves in a volunteer force, armed and well organised. Both parties drilled and manoeuvred openly and without let or hindrance. So much is necessary to understand the circumstances which brought about the destruction of Sackville Street, or O'Connell Street, as it has been popularly styled for the past twenty-five years or so, though the old name clings.

Owing to a conjunction of circumstances, with the exception of a couple of more or less insignificant outbreaks in country districts, the rebellion, in a serious sense, was confined to Dublin. Here alone was there any marked loss of life or structural damage.

Heretofore similar insurrections in other countries had taken the form of street fighting, with the erection of barricades, &c. In this case the plans were better laid, and a different method adopted. The insurgents, who were well drilled, armed, and led, took possession of an immense number of buildings, including numerous points of strategic importance, from whence they were in a position, with their small numbers, to direct an effective, and in some cases deadly, fire. On the arrival of troops from England the issue was not long in doubt, for the insurgents numbered only about 1,000 men, and, despite a vigorous resistance lasting out the week, the rebellion was over; but not until the artillery bombardment, directed against the houses in Sackville Street, had set them on fire, and caused the complete destruction of a large area of that part of the city.

Subsequently the Government passed a Bill giving the owners or occupiers *ex gratia* compensation for the destruction of their premises. To such grants were attached conditions relating to the design, &c., of the new buildings, the city architect under the Corporation being

the administrative officer charged with the regulation thereof.

The area of destruction comprised the whole of one side of Lower Sackville Street, more than half of the other side, a considerable block in Upper Sackville Street, as well as very large portions of at least five or six adjacent streets. Isolated houses or groups of houses were also destroyed, in all about five millions' worth of property, at its then value.

Sackville Street, Upper and Lower, forming one straight thoroughfare, is one of the broadest and most imposing streets in Europe. Beginning at the extraordinarily wide and spacious O'Connell Bridge over the river Liffey, it stretches away until it ends in the distant vista of Rutland Square and the Rotunda. The width between the houses is no less than about 150 feet.

In pre-Union days a residential quarter of the Irish aristocracy, it has long since become a wholly commercial street, but one private residence, the fine old Georgian house of Dr. Montgomery, a well-known medical practitioner, in Upper Sackville Street, remains. At the time of the destruction Sackville Street was one of the most perfect examples extant of an important Georgian street. True, the shop-fronts were a heterogeneous modern lot, without much grace or symmetry excepting the charming old shop of Messrs. Butler & Sons, chemists, which happily escaped injury, but the upper parts were untouched, save by the mellowing hand of time, which had turned the small old hand-made local bricks into a rich and glowing symphony of autumn tints. The dominant characteristic of the old street was one of refined restraint and simplicity. The upper part of Sackville Street was formerly known as Drogheda Street from about 1728. The name Sackville Street, derived from the family name of the Duke of Dorset, was applied to the upper part in 1756. This portion was widened, tree-planted in the centre, and a central walk made and called "Gardiner's Mall," after the Right Hon. Luke Gardiner. New Sackville Street, now Lower Sackville Street, was opened in 1796 by the "Wide Streets Commissioners," an admirable body, forerunners of modern town-planning authorities, and to whom are due some of the finest streets of Dublin.

As soon as the question of rebuilding arose, those who had loved the beauty of the old street trembled for its future, and urged the vital necessity for the control and co-ordination of design. A magnificent and unique opportunity presented itself for creating a really splendid street from the ashes of the old. The vicinity of Dublin contained some of the finest known quarries of limestone



# CONCRETE BLOCKS "KING" PLASTER SLABS

## WALLS PARTITIONS ROOFS

### FIBROUS PLASTER CEILING SLABS

*Ferro-Concrete and Glass Constructions*

## "FERRO GLASS" PAVEMENT LIGHTS

## "KING" CONCRETE GLAZING BARS

### J. A. KING & CO.

181, QUEEN VICTORIA ST., LONDON, E.C., and  
BRITANNIA BUILDINGS, LEEDS.

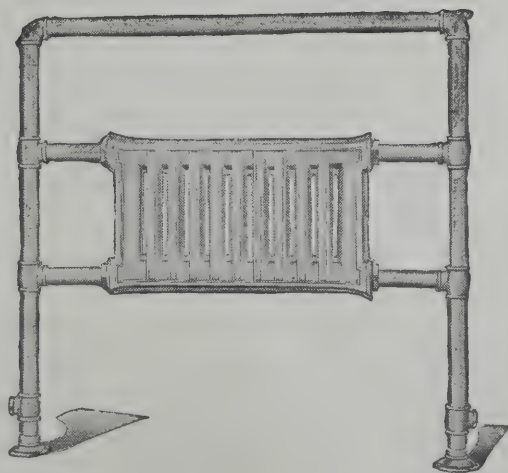
Tel: City 2213 and Cent. 773, and Leeds 22712.

## Ideal Towel Rails.

Ideal Towel Rails form a very advantageous and convenient addition to a Hot Water Supply apparatus. They are now available in a large variety of patterns and sizes or can be made to specification in a few days.

Ideal Towel Rails are regularly manufactured from  $\frac{3}{4}$  in. to  $1\frac{1}{2}$  in. solid drawn brass tubes—polished or nickel-plated.

The No. 10 Towel Rail illustrated contains 11 sq. feet of heating surface—sufficient to warm a Bath Room of moderate size—can be supplied in the plated finish or plain for enamelling.



*Write for further particulars.*

### NATIONAL RADIATOR COMPANY

LIMITED.

Offices, Showrooms & Works: HULL, Yorks.  
Telephone: Central 4220. Telegrams: "Radiators, Hull."

London Showrooms: 439 & 441 Oxford Street, W.1.  
Telephone: Mayfair 2153. Telegrams: "Liableness, London."





HIBERNIAN BANK, LOWER SACKVILLE STREET, DUBLIN.  
Messrs. W. H. BYRNE & SON, Architects.

and granite, admirably adapted to monumental architecture. The old General Post Office of Dublin granite, designed by Francis Johnson and opened in 1815, just one hundred years before, set the keynote of design. Now that the new street stands almost in its entirety, it is possible to conceive what a noble thing it might have been, faced in monumental stone.

Unhappily, the efforts to secure co-ordination went no further than more or less informal conferences of the architects engaged, and others, which led to nothing, save eventually, the regulation of cornice levels, building faces, and one or two minor matters, securing something like a skyline, for which we must be thankful. In addition, a couple of narrow side streets, North Earl Street and Henry Street, were in part widened. Unfortunately, the municipal authorities expressed a preference for an admixture of red brick and stone in the façades, where all-stone was so obviously the correct treatment. Now, unfortunately Ireland has no attractive hand-made brick, indeed, little brick of any sort, so the brick used was either the large Ruabon or Bridgewater, which make a harsh and glaring contrast with the Irish stone. The dressings used include limestone, granite, Portland stone, and terra-cotta. The general effect is not pleasing, and will take fully a century to tone. A few of the buildings, notably the Munster and Leinster Bank, the Hibernian Bank, Messrs. Manfield's premises, all three corner houses, are stone faced with good effect, as are likewise a block of houses next Earl Street. The general architectural style is a sort of free classic. No attempt is made to preserve the flavour of the traditional Irish Renaissance of the eighteenth and early nineteenth centuries, and the influence of the academic movement in England, is not apparent here.

Proceeding northwards from O'Connell Bridge, on the right, facing the river, is Eden Quay where a block of houses was destroyed, and which is now rebuilt in the style associated with the reconstruction. The chief premises are the Seamen's Hostel by Messrs. W. M. Mitchell and Sons, a meritorious and restrained design in red brick with stone dressings; a cinema theatre, Mr. T. J. MacNamara, architect, red brick and terra-cotta; and at the corner of Upper Sackville Street, Messrs. Hopkin's new premises by Messrs. O'Callaghan and Webb. The same firm are also responsible for the new cinema theatre on the site of the D.B.C. premises in Sackville Street. The next building of importance is the Munster and Leinster Bank at the corner of Lower Abbey Street, this design in a free classical treatment is marred

by the excess of detail, there being too many features for the size of the building; the introduction of a red Aberdeen granite base course, strikes a discordant note. With this exception, the whole of this building is in granite and Portland stone. The architects are Messrs. McDonnell and Dixon. The Hibernian Bank on the opposite corner of Lower Abbey Street, also of granite and Portland stone, is on the whole, one of the most pleasing buildings of those yet completed. The architects of this bank are Messrs. W. H. Byrne and Son. Both of these banks would be very much better without the cupolas and turrets which embellish them. Passing the bank, are several business premises which hardly call for any special notice, until we come to Messrs. Hoyte's premises at the corner of Sackville Place, designed by Messrs. Beckett and Harrington. This building, although not the most important in the street, is certainly one of the most pleasing and effective from an architectural standpoint, if indeed, it is not, taking it generally, the best proportioned and most successful in the whole of the destroyed area. The accentuation of the horizontal lines, and the fenestration, &c., are well proportioned and very effective. Further along on the same side, are Messrs. Clery's great new premises, which will have a very extensive frontage, and be directly opposite the G.P.O. Messrs. Clery's premises are still only in skeleton form, being designed on the Hennebique system throughout, and they are to be faced entirely with Portland stone. The building is not yet sufficiently far advanced to judge its architectural qualities, but it should be an imposing structure, owing to its size and scale. The architects are Messrs. Ashlin and Coleman. Between Messrs. Clery's and North Earl Street is a block of buildings stone faced, which are simple and unpretentious each following more or less the same form of design and treatment with excellent results. Were the detail a little more carefully studied, and the horizontal lines more emphasized, this would form quite a suitable suggestion in its general lines and its material for the whole street. None of the houses in this block mar each other by contradiction of treatment, nor struggle with each other for architectural pre-eminence. In the street, as a whole, there is not enough simplicity.

Passing by the Nelson Pillar, and crossing into Upper Sackville Street, we meet the one new block of buildings in the street. The entire block is of very commonplace design, not worthy of this great thoroughfare.

Retracing our steps into Lower Sackville Street on



PREMISES, LOWER SACKVILLE STREET, DUBLIN.  
Messrs. BECKETT & HARRINGTON, Architects.



# REDPATH BROWN & CO., LTD. CONSTRUCTIONAL ENGINEERS



## WORKS AND STOCKYARDS

LONDON.  
Riverside Works,  
East Greenwich, S.E.

MANCHESTER.  
Trafford Park.

EDINBURGH.  
St. Andrew Steel Works.

GLASGOW.  
Pinkston.  
Office 19, Waterloo St.

BIRMINGHAM  
Office, 47, Temple Row.

NEWCASTLE-ON-TYNE.  
Milburn House

London City Office:  
3, LAURENCE POUNTNEY HILL,  
E.C.4.



the opposite or western side, we pass under the noble Corinthian portico of the Post Office. The Post Office had been several times enlarged and remodelled since 1815, not with advantage to the plan. The last alterations had only just been finished when the Rebellion broke out. Of the entire structure, nothing now stands but the outer walls, which are happily quite sound, and almost unaffected by the fire and the bombardment. Although almost five years have elapsed since the demolition, the Government has taken no steps towards rebuilding. A dreadful rumour was indeed current that it was the intention to take down the façade, and to erect a brand new red brick Post Office. It is to be hoped that this was a malicious invention, and that no such idea exists, for it were an awful act of vandalism to contemplate. On this side we get a glimpse of the La Scala Theatre in the side street, Princes' Street, with a terra-cotta façade by Mr. T. J. MacNamara. In the next block we come to yet another Cinema Theatre on the site of the Metropole Hotel. This is only up to the first-floor level, but promises well. It is to be faced with Portland stone. The architect is Mr. A. O'Rourke, and the design, so far, appears quiet and restrained. Adjoining this theatre is Messrs. Eason's new premises, granite faced, and built on the Hennebique system from the design of Mr. J. C. Ruthven, C.E. It is marred by an overpowering mansard roof in concrete, an unduly prominent feature from all parts of the street. At the corner of Middle Abbey Street is Messrs. Mansfield's premises, a monumental building carried out entirely in a very fine blue-white Irish limestone resembling white marble. This building by Messrs. Batchelor and Hicks is one of the best in the area, and would have been even better had there been fewer features in it. The massive columns, with the somewhat distorted order over, look heavy, resting on the large areas of plate glass. At the corresponding corner of Middle Abbey Street, are Messrs. Elvery's large premises, red brick with stone dressings; the heavy red brick turret is not a satisfactory feature. This practically completes the catalogue of new buildings in the main street: those in the side streets, all of brick, hardly call for special mention, with the exception of Messrs. Fitzgerald's new offices in Middle Abbey Street, by Mr. T. J. Cullen. This, an exceedingly well-proportioned design, is handled in a manner well suited to brick construction.

The result of the whole is to show what a great opportunity has been lost. The chief fault is that there is altogether too much architecture, there are no focal points upon which the eye can rest with satisfaction. The façades are packed with detail. Almost every house seems to war with its neighbour for architectural supremacy. It seems to demonstrate the fact that in these times it is impossible to look for architectural unity or rhythm in the work of a large number of designers and owners with conflicting ideals. That the only hope of getting a unified scheme, in similar circumstances, is to secure a design for the whole of the façades as the work of one hand, leaving it to the individual architects to work out the internal details as they will.

In the eleven months ending with November the United States imported paintings, statuary, and other works of art to the aggregate value of \$25,782,842, as against \$17,579,291 in the same eleven months of 1919 and \$6,730,650 in 1918. The importation, however, was not as great as in the year or two before the war. During the same eleven months of 1913 American imports of such articles amounted to \$29,273,341, and in 1912 to \$53,286,218.

We regret to announce the death of Mr. Arthur Hill, F.R.I.B.A. (retired), B.E., of Cork, which took place on February 24 in his seventy-fifth year. The deceased carried out an important practice in the south of Ireland, and many of his buildings have been illustrated in *THE ARCHITECT*. Mr. Hill retired from active practice in 1917 after a paralytic stroke, but his interest in drawing and designing "castles in the air" continued right up to the end. The practice is being continued by his son, Mr. Henry H. Hill, B.A., A.R.I.B.A.

## University College Hospital Reconstruction Scheme.

IN connection with this scheme we are informed that the Committee have appointed as joint architects Mr. Paul Waterhouse and Mr. George Hornblower. Mr. Waterhouse collaborated with his father, the late Alfred Waterhouse, R.A., in the design of the hospital buildings which he brought to completion after his father's retirement, and he was also the sole architect of the Medical School. Mr. Hornblower has been for many years the consulting architect to the Hospital Committee.

The buildings and alterations which form the scheme are of an important character, and are largely the outcome of the magnificent gift of the Rockefeller Foundation.

It will be remembered that when the gift was mentioned in the Press in June last it was allocated as follows:—

	£
New nurses' home ... ..	103,000
New residents' quarters ... ..	31,000
New obstetrical unit ... ..	109,500
Bio-chemical laboratory ... ..	50,750
Reconstruction works in existing buildings	106,000
	£400,250

## "The Architect" Fifty Years Ago

MARCH 11, 1871.

### THE WELLINGTON MONUMENT.

THERE appears to be still a probability that Mr. Alfred Stevens may be permitted to carry out his splendid design for this important work after all. In the interests of the highest class of art we sincerely trust that the rumour which suggests this hope may be confirmed by the action of the First Commissioner. It is true that we have waited long for the realisation of this national monument; it is also true that works which are in their nature intended to go down to posterity by centuries, should not be hurried or scamped. The modern rage insists on—by being "turned out," manufacturers' phraseology, by the month, or even the year. It will be a loss and a discredit to contemporary art if Mr. Stevens is altogether ignored in the work which he has completely conceived, and, so far, embodied in actual execution. The whole art-world knows what quality of art is to be expected from Mr. Stevens' hand, though the same knowledge is not, of course, to be expected from First Commissioners. The public have certainly been patient enough; but those who know the details of the Wellington Monument as designed are bound to be aware that Mr. Stevens himself has suffered more in every sense from the delay which has retarded his great work than either the Government or the public have done. The fact that the artist is in a sense—and that a very injurious one—to his own interests, commercially viewed—the victim of a fatal fastidiousness, which will never permit him to be sufficiently complacent over his own works to enable him to realise them rapidly. In spite of what we have recently written, and of the official correspondence which has been published on the subject, we cannot but hope that Mr. Stevens may be permitted by the official authorities to complete his own conception of so splendid a monument.

ON the Government's recommendation, the programme for building 6,328 houses at Swansea is to be curtailed about 450, the Mayor explaining that only those houses completed by July 1922 would rank for Government assistance.

In a written reply to Captain R. Terrell, who asked the Minister of Health whether he intended to introduce legislation extending the building subsidy from December 23, 1919, until December 23, 1921; and whether he has considered the possibility of extending the subsidy in a modified form to alterations and remodelling of houses so as to make the supply increased housing provision, Dr. Addison stated: "I propose to introduce a Bill extending the period for housing subsidy. With regard to the last part of the question, I may remind the hon. and gallant member that an amendment to provide for subsidies in respect of alterations or enlargements of existing houses was considered on the Housing (Additional Powers) Bill and defeated on division."



## Three Champions.

### **C. D. P. SEMI-PASTE.**

The Highest Grade guaranteed quality Decorators' Semi-paste Paint.  
White and 22 Strong Staining Colours.

### **"HIGH GLOSS" LIQUID.**

11 Selected shades of C.D.P. and White in Liquid Form, giving tough brilliant Lustre Finish.

### **"WALMATO"**

The perfect washable wall finish, inexpensive yet giving charming effects.

These three Champion Products reduce waste to a minimum, satisfy you and please your Customer.

MANUFACTURED BY  
**CHAMPION DRUCE & CO.,**

*White Lead Corroders, Fine dry Colour Paint and  
Varnish Makers,*

**6 LAURENCE POUNTNEY HILL, LONDON, E.C. 4.**

*Works :*  
Southgate Road and  
Caledonian Road,  
London, N.

*Telegrams :*  
"Chamdru"  
London.

*Telephones :*  
City 107  
North 759  
and North 1830.

PHONE : HAMMERSMITH 49 (2 LINES).

# Henry J. Greenham,

*Contractor,*

**ROSEBANK WHARF, FULHAM, S.W. 6**

## HOUSE DEMOLITION A SPECIALITY

**HORSE AND MOTOR HAULAGE.**

**BUILDERS' MERCHANT. WHARFINGER AND STORAGE.**

**DEPOT FOR SECOND-HAND MATERIAL:**

**199a GOLDHAWK RD., SHEPHERD'S BUSH, W. 12**

## The Belgian Phoenix.

By JOHN A. RANDOLPH.

PHENIX-like, Belgium is making a wonderful recovery from her terrible ordeal.

Commercially, what she has regained is the subject of many articles in numerous papers, and a matter of astonishment to her friends. Belgium has shown, and is showing, the same unconquerable determination as that of her King, and is reaping the reward of her whole-hearted labour.

It is doubtful whether the famous French comparison with a reed really meets the case: "*Je plie, mais je ne romps pas*"—I bend, but do not break—for most emphatically the sturdy Belgians—and especially, among them, the magnificent Flemings, now as in the time of the Breydels, De Conincks, and Van Artevelde—did *not* bend.

Consider this brief record of some of the things the Belgians have to face!

In West Flanders alone 160 churches, schools, convents, will have to be rebuilt, many localities existing only in name.

The screen at Dixmude is the subject of a rumour that is too good to be hoped for: it is said the Belgians rescued it—and another that the Huns took it away—before the wholesale wiping out of the town.

Rumbeke and Thourout have lost their steeples, and the church of Ruddervoorde, with its mighty tower and spire, is no more.

Warneton, near Messines, is laid low, as also Zillebeke (near Hill 60), and the flattened site that was the hill is to be covered by a show-hotel!

Audenaerde's great church had the chancel unroofed and two sides of the celebrated tower severely battered; the Town Hall is a little damaged, and many houses destroyed, but the place suffered almost as much as Ypres from gas. The big church is partly in use, having temporarily been made secure.

Eyne, Vosselaere, Nevele, and Landeghem, near Ghent, no longer exist. Only the chancel, much damaged, remains; of Eycke's new church, tower and nave have gone.

Evergem and Oostacker are uninhabitable. Machelen, near Deynze, has suffered much, and the central tower, of the church at Deynze is out of plumb. 80,000 francs' damage has been done at the very interesting modern church of Balgerhoeke, near Eecloo.

Somergem and Aeltre are in ruins, as well as many others round about there.

Most of the destroyed churches in East Flanders were *blown up*, needlessly, by the Huns.

At Ghent, all the copper-work of the new spire of the belfry, excepting the ornaments, was taken by the enemy, also the cast-bronze balustrade of the new bridge of St. Michael, and the copper statues on the Post Office Building, and the copper gutters of the Cathedral of St. Nicholas, and of St. Anne's churches, and many of the bronze statues of the town, but a few of these latter have been returned. Ypres is being rebuilt on its old site—slowly—excepting of course the Halles and Belfry and St. Martin's Church. The nave of Louvain, (St. Peter's) is seriously burned inside, but the choir less so. St. Gertrude's is intact.

Lierre (St. Gommaere's)—roofing badly wrecked, and much of the fine old glass is no more. The little Gothic chapel on the Grand Place is gutted, but the front remains. The wounds of Mechlin are partly made good, though the traces are still visible. The building at the back of the Museum has vanished. Much of the handsome building of the Mont de Piété has been destroyed, but not irrevocably mutilated. St. John's Church is not touched. Much glass is broken at the fine Gothic church of Notre Dame. The Archives building is much burned, but the Grande Place houses are whole.

Courtrai has suffered some havoc; at Termonde the roof of the Town Hall has been reconstructed, and the

tower is having a new roof put on, it is to be hoped to the same graceful pattern as the one destroyed.

As to the carillon, some of the bells may have been rescued, though many fell and were probably seized and melted by the enemy. It would be delightful if the little musical-box chime could be restored. Much of the town is still in ruins, but the Museum and the Parish Church of Notre Dame are *not* much damaged, in spite of reports hitherto prevalent to the contrary. Lisseweghe and Ghisteltes, though so close to the enemy aerodromes which we bombed so steadfastly from aloft, are intact.

At Tirlemont, the beautiful porch to the church of Notre Dame du Lac has had its restoration completed.

With regard to Tournai, the river bank was cut and a special sloping track erected from the bed of the river, up which a big gun was electrically driven to a platform high up out of the water, the gun being loaded, on its way up, automatically; and on arrival at the platform was fired, and it then instantly dived into the Scheldt again, out of sight. This was *one* of the guns, so difficult to spot, which bombarded Paris! No wonder they held to Tournai and district for so long, and so violently.

It has not been recorded whether the great Martello tower on the rampart at Tournai was left, or even used, by the enemy. The Belgians, when the rampart was made, were unable to pull it down, and dared not blow it up, so it was still there in 1914. It was built by Henry VIII., and the walls are of tremendous thickness.

At Tournai, among other villainies, the Huns took away every bit of machinery of the celebrated press of Messrs. Desclée, who are slowly re-installing new works altogether, and have partly started again on their worldwide business.

The foregoing is but a very small chronicle of a state of things which would almost crush the hearts out of any of our great allies in Europe.

## Factory Lighting.

THE Departmental (Home Office) Committee on Lighting of Factories and Workshops has now resumed its investigations. The Committee's work was temporarily abandoned after the publication of its First Report in 1915 owing to the war. The Committee is now constituted as follows:—

Mr. C. Dampier Whetham, F.R.S. (Fellow of Trinity College, Cambridge), chairman; Mr. Leon Gaster (hon. secretary, Illuminating Engineering Society); Sir Richard Glazebrook, K.C.B., F.R.S.; Dr. C. S. Myers, C.B.E., F.R.S. (Director of the Psychological Laboratory, Cambridge); Mr. J. Herbert Parsons, C.B.E., D.Sc., F.R.C.S.; Professor C. S. Sherrington, P.R.S., Sc.D. (Professor of Physiology, University of Oxford); Miss R. E. Squire, O.B.E. (H.M. Deputy Principal Lady Inspector of Factories); Sir Arthur Whitelegge, K.C.B., and Mr. D. R. Wilson, M.A. (Secretary to the Industrial Fatigue Research Board).

The Committee will for the present restrict its inquiries to the following points:—(1) The conditions necessary to secure suitable lighting in factories and workshops; and (2) the effects of mixed natural and artificial lighting, with special reference to the lighting of underground workrooms.

The secretaries to the Committee are:—Mr. J. W. T. Walsh, M.A., M.Sc. (of the National Physical Laboratory, Teddington) and Mr. H. C. Weston, M.J.Inst.E. (Investigator to the Industrial Fatigue Research Board), to whom communications should be addressed at the offices of the Board, 6 John Street, Adelphi, W.C.2.

TENDERS for the building of 232 houses, at a cost of £190,755, to include street making and sewers, was accepted in 1919 by the Hereford City Council. Of the amount named sanction to borrow £167,156 was received. It is now anticipated that to meet the increased cost of materials and labour, amounting to 33½ per cent., £63,585 more will have to be laid out. The Council is applying for permission to borrow an additional £87,184.





# PUDLO

## BRAND

TRADE MARK, REGD.

### CEMENT WATERPROOFER

Walls next rivers are the most difficult of all walls to keep dry.

A rendering of cement treated with our waterproofing powder, when placed either inside or outside the wall, gives a permanently dry interior.

At Calcutta, India, a large underground vault near the River Ganges, and subject to a five-foot tide, was made absolutely watertight with such a rendering.

This remarkable product is increasingly used for Flat Roofs, Reservoirs, Baths, Tanks and Damp Floors.

Tested by Faija, Kirkealdy, Cork University and the Japanese Government.

**BRITISH! and THE BEST.**

Sole Proprietors and Manufacturers—  
Kerner-Greenwood & Co. Ltd., Ann's Fort, King's Lynn.  
J. H. Kerner-Greenwood, Managing Director.

R.W. STODOLSKY



## For every lighting condition

Wherever, and for whatever purpose, you require light there is a Mazda lamp to fit the case. As to size, you can use on ordinary lighting circuits any one of fourteen different lamps from the 10 watt vacuum lamp to the 1,500 watt gasfilled lamp. As to type, there are the regular lamps for ordinary service, tubular and candle lamps for special and decorative lighting, motor car lamps, traction lamps, etc., etc. Each lamp is, of its kind, supreme in efficiency, physical strength and brilliance.

**PRICES REDUCED**

**The British Thomson-Houston Co. Ltd**  
Mazda House, 77 Upper Thames Street, London, E.C. 4  
Works: Rugby, Willesden, Coventry and Birmingham.  
Branches in all large towns.

**MAZDA**  
Drawn Wire  
Electric Lamps  
Made in Rugby

**B T-H**

**MAZDA**  
GAS FILLED  
LAMP

1437



## Electric Light Fittings.

To design electric light fixtures that harmonise effectively with all styles of decoration calls for considerable experience. The Edison Swan Electric Co., Ltd., by their long connection with the electric lamp industry, are exceptionally well placed to deal with this class of work.

For many years past they have been manufacturing all kinds of fixtures from the simplest form of fitting to the more elaborate "Period" styles, and many important installations have been carried out. In most cases the services of the Edison artists have been freely utilised in the preparation of special designs. A recent example of fixtures supplied under architect's supervision will be



found in the offices of the Commercial Bank of London, Ltd., 37 to 41 Gracechurch Street, London, E.C.

Twenty-five fixtures of the same design (as illustrated) were supplied, to the following specification:—Cast bronze—finished semi-indirect fitting, hexagonal in shape, with satin finished bent glass, panelled bowl, and satin-finished oblong glass panels behind the Greek key ornamentation around the top of the bowl, suspended by 6-way oblong link chains from a cast ceiling plate.

It should be stated that the Edison Swan Company have a great variety of choice fixtures always on show at their London and provincial depôts.

## General.

MESSRS. ADAMSON & KINNS, architects and engineers, of London, have prepared plans for a cinema proposed to be erected in Derby Road, Nottingham, by the "Capital" Picture Theatres (Middlesbrough and London), Ltd., at a total cost of about £73,000.

VISCOUNT GREY has decided to rebuild his Northumberland home at Falldon. The contract for the structural part of the work has been let to Messrs. R. & G. Brown, of Amble. Falldon Hall was destroyed by fire on April 26, 1917, while Viscount Grey was in Scotland. Fortunately, all valuables were saved, including furniture, the contents of the museum and library, and the family portraits.

THE Scarborough Town Council has tentatively approved plans submitted by the Scarborough South Cliff Cinema, Ltd., for the erection of a cinema on the site of Feniscowles House. The building, which will be in the heart of the fashionable part of Scarborough, will seat 817. Three shops will be constructed at the front, and over these will be a café.

THE York City Council has received the consent of the Ministry of Health to the purchase of St. Nicholas brick yard at Heworth. A lease of the brickyard will now be granted to a local syndicate at a fixed price of £100 per year, with a royalty of 5s. per 1,000 white bricks when they were making over £4 per 1,000, 4s. per 1,000 when they were making £3, and similar royalties according to price.

THE Western Engineering Co., which has purchased 200 acres of land on the eastern side of Porthcawl, are about to commence its development scheme immediately. A sea wall is to be constructed from the docks to Mackworth Road and a hall to accommodate 650 people will be erected this summer. Shelters for 5,000 people are to be erected at once. A miniature railway will be laid fringing the bathing pool as far as the Old Red House, and returning by a circular route near Newton Village.

THE Standing Committee on Water Regulations of the British Waterworks Association has now completed the revision of the specifications of standard water pipes and fittings. The British Waterworks Association took over the powers and duties of the late Incorporated Joint Committee on Water Regulations, which was wound up in voluntary liquidation in November 1919. That Joint Committee issued Specifications in 1908, which were revised in 1912 and supplemented in 1913. These Specifications have been under revision during the past twelve months, and the first issue of the 1921 Revised Edition of the Specifications is now available upon application to the Secretary, British Waterworks Association, Metropolitan Water Board Offices, New River Head, 173 Rosebery Avenue, London, E.C. 1, at 5s. per copy.

## Housing News.

THE Carnarvon Town Council has decided to defer its housing scheme for six months in view of the recent fall in cost of materials and labour. The Council are pledged to the Ministry of Health to erect 100 houses.

THE Scarborough Corporation has approved of plans for the construction of fifty-two more houses on the Seamer Road estate by direct labour. Twenty-four have already been completed or are nearing completion.

THE Lincoln City Council, at their last meeting, agreed to invite tenders from local master builders for the erection of more houses on their Wragby Road estate. An amendment that the Building Guild should be allowed to submit tenders in competition was lost.

At a meeting of Rowley Regis Urban Council it was reported that the estimated cost of the Rowley Regis and Black Heath housing scheme, which had been commenced by H.M. Office of Works, was £253,014, of which sum £235,875 would be absorbed by the erection of the 255 houses, £10,843 by road construction, and £6,296 by sewer construction.

THE Brownhills Urban District Council has accepted a tender for the erection of 250 houses—114 parlour and 114 non-parlour type, at Lichfield Road, Brownhills, and eight parlour and 14 non-parlour type at Sheffield. The contractors are Messrs. A. & S. Wheeler, London, and the tender accepted is £225,308. The tender, which works out at £901 per house, is exclusive of the cost of sites, sewers, and streets. A condition of the contract is that the Council shall benefit by any fall in the costs of materials, &c.

THE Gateshead Town Council last week adopted an amended plan for the second portion of the Carrs Hill estate. The sanction of the Ministry is to be sought for the erection of the 382 additional houses. Of these it was suggested that 20 should contain six rooms, 154 five rooms, 166 four rooms, and 42 three rooms, all with sculleries, bathrooms, &c. It was proposed that there should be a garden to each house, with the reservation of a portion for playgrounds, and a triangular site of about 2,000 square yards for the erection of a suggested institute for the needs of the tenants. The total number of houses on the estate will be 652.

At a meeting of the Hebburn-on-Tyne Urban Council, recently, the clerk stated that a ratepayer had written asking whether it was in order for a Councillor to be employed upon the Council's housing scheme which is being carried out by His Majesty's Office of Works. The clerk said he had communicated with Parliamentary agents, who had advised that by working on the housing scheme the member referred to had disqualified himself as a Councillor. The Council unanimously decided that Councillor James Milne, Chairman of the Housing Committee, by working as a joiner on the scheme, had become disqualified, and declared his seat vacant.



## CONTENTS.

A Notable American Building . . . . .	PAGE 187	An Architect's Claim . . . . .	PAGE 196
Illustrations . . . . .	188	"The Architect" Fifty Years Ago . . . . .	196
Notes and Comments . . . . .	188	Zoning and Town Planning . . . . .	197
London Art Galleries . . . . .	189	Correspondence . . . . .	200
Art News of To-day . . . . .	189	Competition News . . . . .	200
The Royal Institute of British Architects . . . . .	190	Birmingham Architectural Association . . . . .	202
Forthcoming Events . . . . .	192	Housing News . . . . .	202
Rural Signposts.—I. (Illustrated) . . . . .	193		

## A Notable American Building.

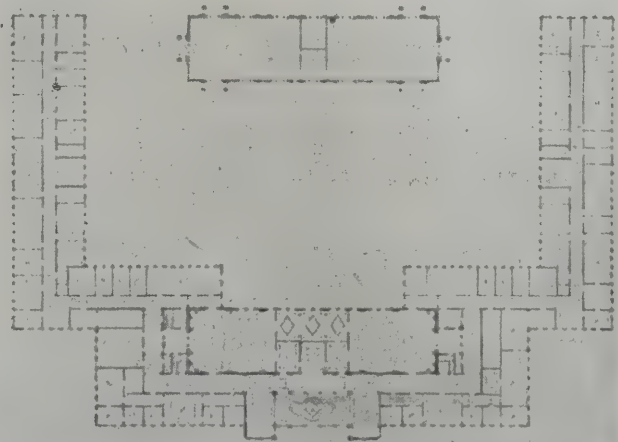
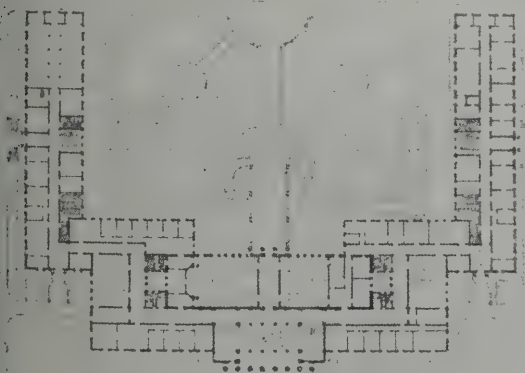


THE CAPITOL, PORTO RICO. ADRIAN FINLAYSON, Architect. (From "The Architectural Record.")

PUBLIC buildings usually represent the expenditure of public funds raised by taxation, but the new Capitol of Porto Rico is built out of profits made during the war. The Food Commission of Porto Rico, constituted by the Insular Government to meet the emergencies of an isolated community, whose sources of supply were menaced by the entrance of the United States into the war, brought into the public treasury \$600,000 profits from its operations, and recommended that the money so saved should be used to build a suitable Capitol, a proposal which was endorsed and acted on.

This building has been designed by Mr. Adrian Finlayson, who has done much other admirable work in connection with new schools and other buildings in Porto Rico, and is to be carried out in reinforced concrete. The central dominating feature is formed as shown in the plans by carrying up a pavilion which contains the halls of the two legislative assemblies consisting of the Senate and the House of Representatives. Nothing could be better than the grouping of masses in this cleverly designed building which possesses a quality of freshness not always found in

American monumental design. The main building is devoted to the two legislative branches, the Supreme and District Courts for the island, while the wings contain the departmental offices. The great projecting wings of the latter form, with the main building a patio open on the north side to a boulevard. Both in Porto Rico and the Philippines the American Government have carried out great and successfully organised building and town-planning schemes which form a striking contrast to the half-hearted and abortive collection of Europeanised buildings of a non-descript character which are too common in India and our dominions and dependencies. Great civilising and administrative works have been our monuments; America has determined in her possessions to give these an appropriate æsthetic setting, and with characteristic thoroughness has shown how this can be done. It is not too late perhaps for us to take the lesson to heart, for good and appropriate design need not be more costly than the works of the imperfectly trained and organised men which have too often been employed by our rulers on similar occasions.



FIRST AND SECOND FLOOR PLANS, THE CAPITOL, PORTO RICO. ADRIAN FINLAYSON, Architect (From "The Architectural Record.")



## Illustrations.

VILLA EMO, FANZOLO, ITALY. (From "The Architectural Forum.")

"THE FORBIDDEN COURT," SANTA BARBARA MISSION. By BENJAMIN C. BROWN. (From "The American Magazine of Art.")

NEW PAVILION SPORTS GROUND, WADHAM LODGE. L. KEIR HETT, F.R.I.B.A., Architect.

THE pavilion has been erected this year from the designs of L. Keir Hett, F.R.I.B.A., architect, of Paternoster House, E.C. 4.

The sports ground in Wadham Road, Walthamstow, recently acquired by the A.E.C. contains cricket, football, and basket-ball pitches, tennis courts, bowling greens, and a rifle range. The pavilion has been designed to

accommodate members of both sexes, with a large club-room upstairs overlooking the grounds. The building is a timber-framed structure, weather boarded and lined internally with "Beaver Board," with a tiled roof.

The builders are Messrs. Wallace & Wallace, of Broomhill Road, Woodford Green. Makers of the clock: Messrs. J. W. Benson, Ltd.

## Notes and Comments.

## Villas in the Veneto.

WE give among our insets this week some fine illustrations from our contemporary, the "Architectural Forum," which illustrate the Villa Emo, at Fanzolo, which are described in an article by Harold Donaldson Eberlein and Robert B. C. M. Carrère. This beautiful and simple building is one of the smaller works of Palladio, who thus describes it: "The . . . fabric is at Fanzolo, a village in the Trevigiano, three miles distant from Castelfrances, belonging to the magnificent Signor Leonardo Erno (*sic*). The cellars, the granaries, the stables, and other places belonging to the villa are on each side of the master's house, and at the extremity of each is a dove-house, which affords both profit to the master and is an ornament to the place; and one to which all may go under cover, which is one of the principal things required in a villa, as has been before observed. Behind this fabric there is a square garden of eighty campi trevigiani; in the middle of which runs a little river which makes the situation very delightful and beautiful. It has been adorned with paintings by Messer Battista Venetiano." Mr. Eberlein is doing a most useful work in bringing out the series, of which this is the first example. Some of the great architectural works of the world are almost over-illustrated, but there are innumerable buildings of secondary or even tertiary importance, records of which are most valuable to both architects and architectural students. We are also glad to give from another source—the "American Magazine of Art"—a reproduction of a picture of one of the old buildings of Santa Barbara, California.

## Cancer Houses.

THE "Daily Express," commenting on the alarming increase in the number of deaths attributed to cancer, which have risen from 15,000 to 42,000 in some thirty years, gives a list of the suggested causes among which dry rot is mentioned. It is altogether uncertain whether there is any substantial foundation to this, for though we have all heard of "cancer houses," and though it can certainly be proved that in some cases several cases of cancer have occurred among successive occupants in one house, such medical opinion as we have heard expressed is uncertain whether there is substantial evidence for connecting the cases of cancer with houses, and as to whether they should not be attributed to other causes. As to dry rot, we have always been interested in certain passages in the Old Testament in which leprosy in buildings is spoken of and means of cleansing such buildings are laid down. Was leprosy in a building dry rot or not? We should like to obtain authoritative opinion on this. If it was, it is yet another proof of the soundness of the old Jewish observances with respect to cleanness and hygiene generally, and would form an additional reason for taking the greatest care to eliminate all traces of dry rot when discovered. Historically we are continually discovering the truth of traditions which once passed for fables. The early kings of Rome are now known to have been actual and not mythical persons—Herodotus an accurate observer and not a Sir John Mandeville, and it may quite well be that the Jews had centuries ago discovered and established truths relating to health which

have been forgotten and which modern science will re-establish in their completeness.

## Old Temple Bar.

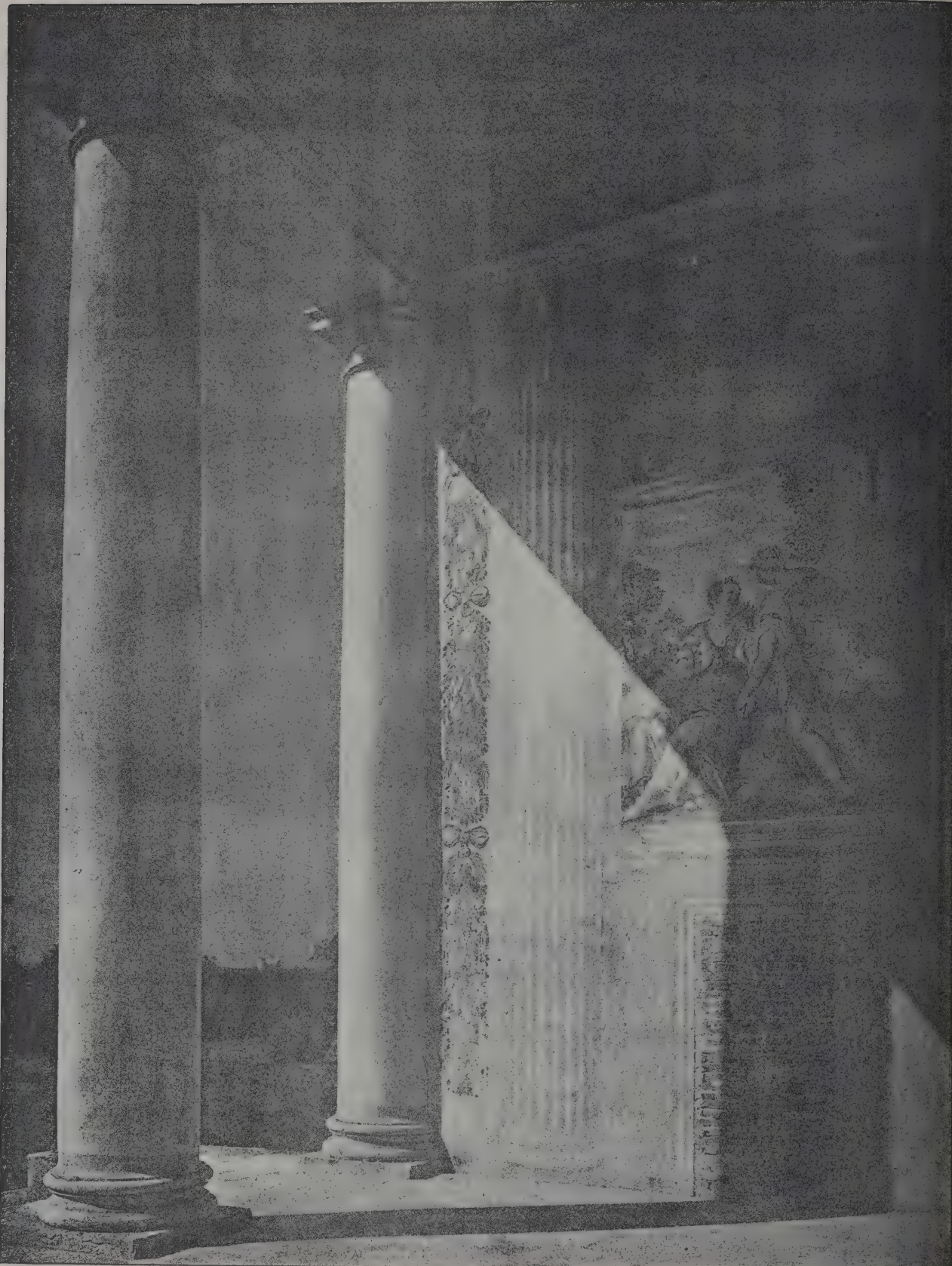
WE are glad to hear that the London Society has been negotiating with Admiral of the Fleet Sir Hedworth Meux, with a view to securing the return of the old gateway to London. The proposal is to set it up at the Embankment end of Middle Temple Lane, where it will again serve to define the boundaries of the Cities of London and Westminster as it did formerly in the Strand, but where there are no traffic difficulties such as secured its removal. The gateway, in spite of its somewhat crude architectural form, was very picturesque, and one cannot pass the present monument without regretting the loss of picturesqueness which was involved by a necessary change. Our feelings are heightened by the fact that the monument substituted for it is one of the worse to be seen—even in London. We have sometimes wondered whether it would not be feasible to bridge over some of our modern streets at suitable points as a great arched opening surmounted by buildings is one of the finest architectural forms which can be conceived. All that seems necessary in the interest of traffic is that such structures should be on a sufficiently large scale. If we had them we should have less regret for the demolition of the City gates and other features of a like character.

## Organised Labour in Boston.

ORGANISED Labour has entered the field of general contracting in Boston, and a body entitled the Building Trades Union's Construction and Housing Council has been formed, and has undertaken and completed several jobs. It is incorporated, but no paid union official can hold office on the Council, which is made up of men in the industry who earn their living by manual work. The corporation has a capital of \$100,000 divided into \$10 shares, and no one can own more than ten shares. A co-operative bank is to be organised which will finance the building of houses. Since a State bank can lend 80 per cent. of the value of real estate, the co-operative scheme makes it easy to build cheaper than under the old methods, since the 80 per cent. loan will go far towards covering the total cost of the works undertaken. The bank takes the first mortgage. The owner puts money into the house. The Council will then take the second mortgage for the difference between the cost and the loan received from the bank. It is expected that this will greatly ease finance and stimulate the building of workmen's houses. Materials will be bought on the co-operative basis. In dealing with work the Council discusses each job, and in this discussion a mason, carpenter, bricklayer and plumber take part, while the architect employed by the Council is present. If the Council get the job one of its members takes general charge of it till completion, while the general foreman is in constant touch with the owner. The interesting feature of this experiment is that it is entirely managed by working men, and a number of the leaders connected with it are going to the Trade Union College at Boston to take courses in the various matters which enter into the administration of the Council.







*From a panchromatic photograph by Harold Donaldson Eberlein*

SCREENLESS PHOTO PROCESS, SPRAGUE-HAYCOCK (PRINTERS) LTD. 69 & 70, DEAN STREET, LONDON, W.1.

The walls of the Loggia are enriched with fresco painting applied direct to the plaster and remain to-day in a remarkable state of preservation

SOUTH LOGGIA, VILLA EMO, FANZOLO, ITALY

FROM THE ARCHITECTURAL FORUM.



THE ARCHITECT, MARCH 18th, 1921.



MAIN BUILDING FROM AXIS OF GARDEN



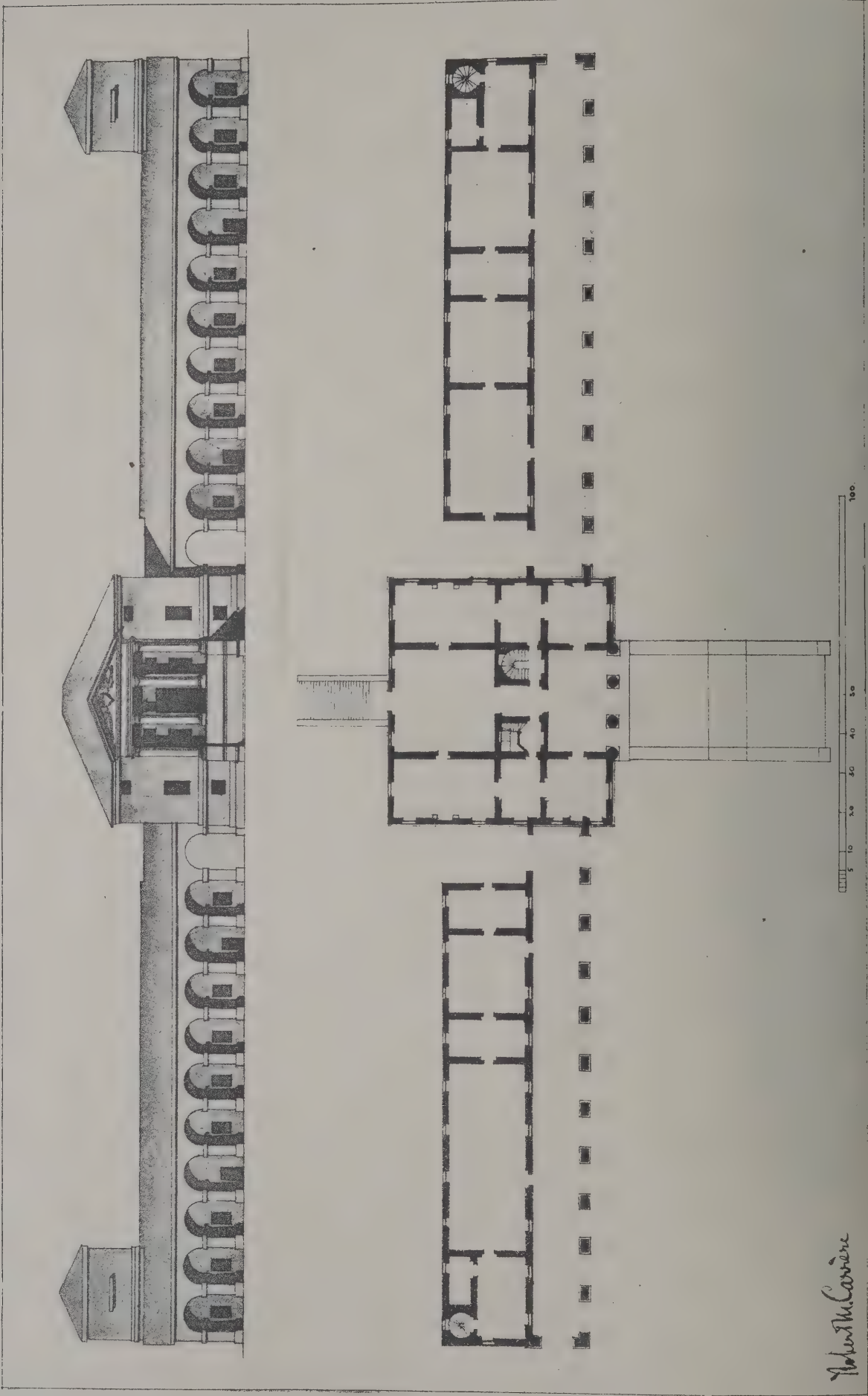
• • WEST WING AND MAIN BUILDING FROM THE GARDEN  
VILLA EMO, FANZOLO, ITALY

FROM THE ARCHITECTURAL FORUM.







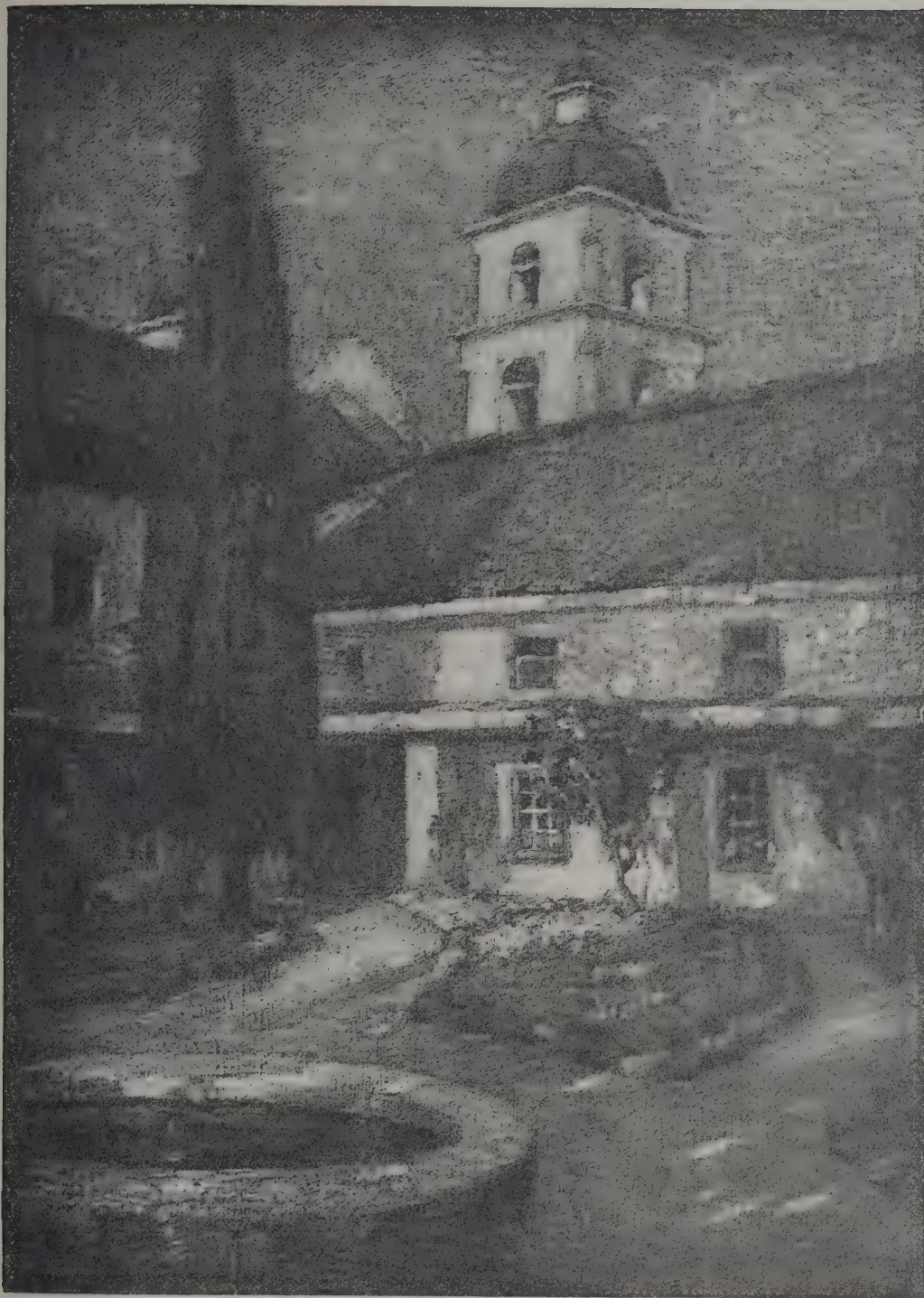


SCREENLESS PHOTO PROCESS, SPRAGUE-HAYCOCK (PRINTERS) LTD. 69 & 70, DEAN STREET, LONDON, W.1.

SOUTH ELEVATION AND FIRST FLOOR PLAN OF MAIN BUILDING, WITH GROUND FLOOR OF WINGS.  
MEASURED AND DRAWN BY ROBERT B. C. M. CARRERE.



THE ARCHITECT, MARCH 18th, 1921.



"THE FORBIDDEN COURT" SANTA BARBARA MISSION

(Women are not permitted to enter here)

BY BENJAMIN C. BROWN

FROM THE AMERICAN MAGAZINE OF ART.





Open.

UNIVERSITY OF MICHIGAN

APR 1 3 1961

LIBRARY

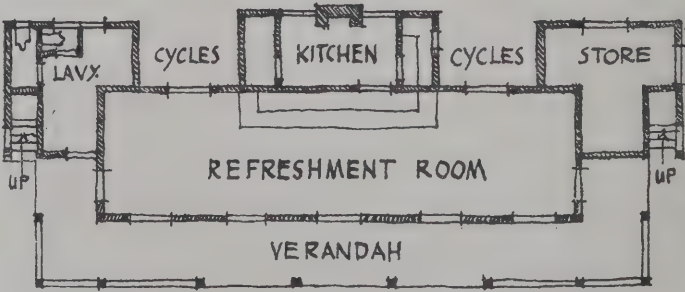
1921.

NEW PAVILION  
: SPORTS GROUND :  
: WADHAM LODGE :  
for the  
Associated Equipment Co. Ltd.



Perspective View

GROUND FLOOR



ELEVATION

FEBRUARY 1921.

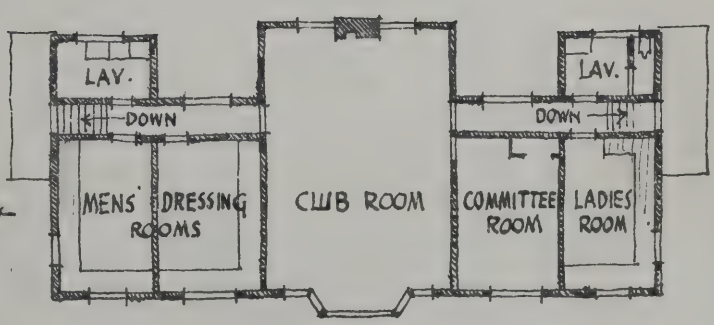


18th, 1921.



Grounds.

L. Keir Hett. INV. ET. DELT.



FIRST FLOOR

L. KEIR HETT. F.R.I.B.A.  
ARCHITECT.  
PATERNOSTER HOUSE.  
EC. 4

50 60





## London Art Galleries.

(All Rights Reserved.)

THE most important event in the London Galleries last week was the exhibition of Contemporary American Art, which opened at the Grafton Galleries on Saturday, March 12. The exhibition of drawings and etchings by the late Edgar Wilson at the Twenty-One Gallery which was noticed in these columns was followed, also on March 12, by an exhibition of general character, which still included some work by Edgar Wilson, notably his "Kingfisher," and his fine drawing, with pen, in clean strong lines, of "Medieval Ships." Next to this a colour print by the Japanese Kunisada, a pupil—perhaps the greatest pupil—of Toyokuni has something of Utamaro's charm in the woman's figure; and beside this is a scarce lithograph by C. H. Shannon of two women's figures under the title of "The Toilet." The whole of this little exhibition is, in fact, very choice and well selected. Henry Bishop is a painter whose work is worth following, though he is better here in his scene outside the walls of a Moorish city, which I believe to be Tetuan, than in his street scene of that city, where the red dress of one figure quite fails to bring the whole together, and strikes an awkward note. J. D. Fergusson's "Yellow Roses" is excellent, and the flower study by R. H. Carrington in water colour is loose and well put in; while to be noticed is H. Shepherd's "Egyptian Eagle Owl," painted on silk and almost Japanese in quality, and an open-air figure study by Helps, which has good colour.

Peter De Wint, whose dates are 1784-1857, was one of the fathers of our English water-colour art; and it is interesting to find here a pencil drawing by his hand of a "Horse and Cart in a hayfield," which comes from the collection of Sir Harry Wilson, K.C.M.G. I will mention last a dry-point etching, fine in quality, of a girl's head, "Jeanne," by Theodore Roussel. Near this gallery, and still in the Adelphi, are the Little Art Rooms which have just been showing an exhibition of water-colour drawings by Hugh Bellingham Smith. There is good colour and quality in this artist's studies shown here of Sussex, notably "Hailsham, Sussex," and the two paintings of "The Downs"; his "Japanese Screen" is painted on silk, and gains from its material, but the drawing which most impressed me, from its colour, mystery, imaginative quality, was the "High Mass," the figures of the celebrants emerging from the shadowy spaces of the building.

At these "Little Art Rooms" are being published an excellent series on "Modern Woodcuts," the third of which, on the work of T. Sturge Moore, being out only last week. The woodcuts of Sturge Moore, as has been said with truth, are "the authentic expressions of temperament." They have a poetic quality which appears in their titles, as from the mind of a scholar and classicist. "The Centaur's First Love," "Peau d'Ane bathing," "Pan and Psyche," "The Castle of Indolence,"—while the quality of line, the contrast of black and white, is well handled. The two preceding volumes in this series are (Vol. I.) on Gwendolen Raverat, whose fine woodcut of "The Bathers," dated 1920, and exhibited at the Chenil Gallery, was recently noticed in these columns, and (Vol. II.) that master of this craft Frank Brangwyn, of whom it has been said that there is in his woodcuts the same masterful gesture that characterises his painted and etched work and his lithographs.

The fourteen examples of Mr. Brangwyn's work here reproduced were selected by the editor with the artist's approval, and printed at the Morland Press. Signed artist's proofs of Mrs. Raverat's woodcuts, including those reproduced can be had at the Little Art Rooms.

The exhibition of Contemporary American Art, opened in the Grafton Galleries on Saturday, appears to derive its inception from the Exhibition Gallery which for the last ten years Mrs. Gertrude Vanderbilt Whitney, herself a sculptress, has maintained open to the public in New York.

"To sum up," we are told by Mr. Forbes Watson, "the work of a decade was a natural idea, particularly as a comprehensive collection, from the Whitney Gallery exhibitions, could not fail to be sufficiently inclusive to indicate the growth of American painting during the last fifty years." Without being in a position to dispute this last assumption, for it is now some twelve years since I was across the "herring pond," and it is difficult to keep close touch of developments that side, a visit yesterday to the Grafton Galleries raises some doubt in my mind whether the very best of American art has come across this time. However, we may be thankful for what we have, which is at least an interesting display. Certain artists are well to the front here, and among these I shall take first Childe Hassam, who has four canvases, among which I should select his charming nude, "Against the Light," painted almost like Gaetano Previati, with separate brush strokes of clean colour and with great tenderness of feeling; while his "Afternoon of the Avenue" (obviously Fifth Avenue) shows the great thoroughfare all decked with flags in some wartime celebration.

Near this we come back to the war in George Bellows' tragic scene of "The Murder of Edith Cavell." A lighter note is touched in the numerous small paintings, twenty-three in all, contributed by Guy Pène du Bois, which touch the lighter side of American life with a handling which recalls to us Forain,—even in subject in such a scene as "The Law." Of Robert Henri's three paintings I should select his clever "Laughing Boy," and in figure work Arthur Davies is well presented with nine paintings, among which his "Dweller on the Threshold" has something of Goya's mystery and sense of vague terror. In landscape we find only one Abbott Thayer ("Winter Sunrise on Mt. Monadnock"), and would have liked more; but Rockwell Kent sends us fifteen contributions, among which I like best his woodcuts and his admirable "Berkshire, Winter," with snow in the foreground contrasting with the deep purple of the distant hills.

At the Independent Gallery, only a door or two away, was opened this month an exhibition of water colours by Paul Signac. His technique here in water colour is quite different to his oils; he gets his effect with clean patches of pure brilliant colour and that effect is wonderfully rich in such studies as "Les Minaouets," "Pêcheurs à l'échouage," "Antibes" (in which it was suggested to me that something of Van Gogh's influence appears), and in his two visions of rich colour under "Nature Morte."

S. B.

## Art News of To-day.

WE are informed by the Trustees and Director of the National Gallery that on and after Monday, April 4, the number of paying days at that Gallery in Trafalgar Square will be increased from two to four in each week. Under this new arrangement, therefore, on Mondays and Tuesdays, as well as Thursdays and Fridays, the public will be charged sixpence per person; but on Wednesdays, Saturdays, and Sundays the Gallery will be open free to the public as before. This arrangement is expressly stated to us as being only intended "during the existing financial stringency," and under that reservation seems a fair proposal. Our Galleries of the nation belong to the public for their pleasure and profit; and in spite of recent criticism we believe they are fully used and appreciated.

In this connection the really admirable exhibition of water-colour drawings, now on view at the Victoria and Albert Museum, of the English School, may be mentioned, of which we propose to give a detailed notice later in the columns of THE ARCHITECT.

We regret to note the death at Kingsknowe, near Edinburgh, of Mr. Alexander Roche, R.S.A., in his sixtieth year. Mr. Roche, who had started life as an architect, was a constant exhibitor of landscape and figure work at the Scottish Academy and other exhibitions,



## The Royal Institute of British Architects.

A GENERAL meeting of the Royal Institute was held on Monday, March 14, Mr. John W. Simpson, President, in the chair.

Mr. Arthur Keen, the hon. secretary, said he deeply regretted to announce the decease of the following members:—

Lord Moulton, P.C., K.C.B., G.B.E., F.R.S., Hon. Associate, elected 1883. Lord Moulton, when at the Bar, strongly advocated legislation to diminish the inconveniences and hardship arising from the law as to rights of light. In March 1900 he read before the Institute a paper on "Reform in the Law of Ancient Lights," and afterwards joined the Committee of the Institute and the Surveyors' Institution which was formed to take steps to effect an alteration in the law. In June 1903 he introduced into the House of Commons a Bill to amend the law relating to Easements of Light.

Comte Robert de Lasteyrie, the eminent French archæologist, elected Honorary Corresponding Member in 1904.

Dr. Pierre Joseph Hubert Cuypers, the distinguished Dutch architect, who received the Royal Gold Medal in 1897, elected Honorary Corresponding Member in 1866.

Arthur Hill, of Cork, elected Associate in 1866, Fellow in 1887, and placed on the list of Retired Fellows in 1918.

William Cecil Hardisty, of Manchester, elected Fellow in 1906.

Mr. Keen next announced the award made by Mr. John W. Simpson, P.R.I.B.A., as assessor in the competition promoted by the Worshipful Company of Brewers for a Type-design for a Licensed House in a Large Town. Particulars of this award will be found under the heading "Competition News" on p. 200.

Mr. H. Percy Adams, F.R.I.B.A., then proceeded to read a paper, of which we give the following extracts, on

### Cottage Hospitals.

Probably the first cottage hospital was that erected at Cranleigh, Surrey, in 1859, by Mr. Albert Napper, and he appears to have organised a system to overcome the defects of giving free medical relief by insisting that patients should contribute something, according to their means, and that medical men should be allowed to see their own patients in the wards.

The object of a cottage hospital is to provide readily accommodation for the sick poor, in districts situated long distances from towns having general hospitals; to enable local doctors to treat their poorer patients under favourable conditions, and to allow local and visiting surgeons to perform operations which otherwise would have to be sent long distances to the general hospital.

Cottage hospitals are of two distinct types: those that have been converted from existing buildings and those that have been built for this purpose. In the former, the original building has probably largely governed the plan, as at Cranleigh, where a Surrey cottage was converted at a cost of £50. New buildings are also of two classes: the permanent, of brick, stone, or concrete; and the semi-permanent, such as wood-framed buildings and those built of slab partitions, &c.

A cottage hospital is generally understood to be one containing any number from three to twenty, or even to thirty beds; above that number they become general hospitals. Much the same rules apply in designing and constructing both. Forty years ago it was contended that better results were obtained in the cottage than in the general hospital, but statistics do not now show that there is any distinct advantage. The hygienic conditions and the medical and nursing attention have vastly improved in general hospitals in recent years. In most cases it is easier to raise money for the upkeep of a cottage than of a general hospital.

Approximately the number of beds provided in the country districts where cottage hospitals exist is about four per thousand of the population. As to the cost of building, this at the present time is very difficult to arrive

at; probably about 2s. 6d. a foot cube would be somewhere near the mark, but approximating the cost at so much per bed is always elusive and a very deceptive method, as so much depends on the surroundings, the nature of the site, local conditions, and the accommodation provided, and these all vary enormously.

The site should be easy of access for patients and medical officer, and as far as possible ought to have a gravel subsoil—not clay, be dry, thoroughly well drained, clean, and well raised above the surrounding country in a sunny position, sheltered from cold winds, free from drainage from higher ground (which should be intercepted if necessary); there should not be many large trees near the buildings, as they attract moisture and interfere with the free circulation of air. If expense is not of great importance, it is well to have the ward floors well above the ground level, and the surface of the building site should always be covered with a layer of concrete. A good water supply is essential, and it is a great advantage to be able to connect the drainage to a main system.

The general arrangement of the plan depends largely on the number of beds to be provided; there are many details considered essential in a general hospital that are not possible in a cottage hospital. From six beds upwards there is a tendency in most plans to obtain more complete separation of the kitchen department from the wards, undoubtedly a great advantage to the patients.

The accommodation is usually a male ward of from four to eight beds, female ward of from four to eight beds, one or two single-bed wards, bath-room, sink-room and w.c. for each sex, ward kitchen, larder, linen-room, store for patients' clothes, operating-room with possibly small sterilising-room adjoining, a doctors' room or dispensary, nurses' sitting-room and two to four nurses' bedrooms, servants' bedrooms, bath-room and w.c., general kitchen, scullery, small pantry, larder, store room, stores for fuel, a detached mortuary, and ambulance shed. The larger cottage hospitals for over twenty beds more or less follow the pavilion type of plan, and are really miniature general hospitals.

Opinions differ largely as to the cubic feet to be allowed patients in the wards—1,000 ft. to each bed should be a minimum; some authorities allow 1,500 or even more; the floor area per bed should not be less than 100 sq. ft., the head space per bed—that is, from centre to centre of beds—should be at least 8 ft., and wards with beds on both sides should be at least 20 ft. wide or 24 ft. wide if there is a central fireplace; the minimum height of a ward for six beds or over should be 11 ft. The walls and ceilings should be of some non-absorbent material such as cement or plaster, with a hollow cove in the corners and next the ceiling. Distemper is usual, but if finished with enamel paint at any rate on the dado, it is far more lasting and preferable in every way. Tile dados are expensive, but can be made to look extremely well, are easily washed and more or less permanent.

Floors of teak are as good as any, and if of boards they should be secret nailed; but a good teak parquet has closer joints and is even better. There should be a hollow cove of teak four inches high next the walls. A good floor can be made with thick linoleum, either laid direct on the cement concrete or on a deal-boarded floor and wax polished.

Windows for wards should have a glass area of not less than one square foot to every 64 feet of the cubic area. The glass line should be not more than 2 feet 6 inches to 3 feet from the floor, and should be taken up as near as possible to the ceiling.

Joinery can be either painted, enamelled, or stained and varnished; enamel is best, but stained and varnished less costly in upkeep. Door and window furniture should be of the simplest forms and of material to minimise cleaning, such as bronze left to go its natural colour, silveroid, hard wood, glass, or china. Where there is much traffic it is well not to have square plaster angles, as they soon become chipped.



The sanitary annexes, containing the sink-room and w.c., have in most recent hospital work been disconnected from the wards by what are called cross-ventilated lobbies. In these days of modern sanitation these are hardly so necessary as in the old days of indifferent plumbing; in the new plans just issued by the Ministry of Health for model maternity hospitals, and also in the recently erected hospitals in connection with housing schemes, and in the new Chelsea Hospital, by no less an expert than Mr. Keith Young, the sanitary annexes are no longer disconnected from the wards by cross-ventilation.

The floors and walls of the connecting lobbies should be of materials as impervious as possible—white marble terrazzo for the floors, with cove skirtings next the walls, and the latter either tiled, enamelled, painted, or distempered. W.C. doors should always open outwards, as otherwise a patient may fall against the door and prevent it being opened. The w.c. apparatus should be of the simple wash-down pattern, and the corbel type is perhaps the best, as it allows of the floor being more easily cleaned.

The sink-rooms should contain a special sink for emptying bed pans and receiving slops, and should have a three-gallon flushing tank. It is very useful to have a scrubbing slab and an adjoining sink for soaking mackintosh sheets and soiled linen. There should be a rail or shelf for bed-pans, over a radiator if possible, and a cupboard for brooms and pails.

The bathroom should be, if possible, 9 feet by 8 feet, and the bath placed centrally in the room, with the head of the bath facing the window; one bathroom is usually enough for ten or twelve patients, and, if well placed, can be used by both sexes. The bath should be of porcelain enamelled iron, and, to simplify cleaning, the taps could be of the same material. In quite a small building brass or gunmetal may be preferable, as nurses take a pride in a few bright things. On all groups of hot- and cold-water fittings there should be a stop-cock so that any one section can be cut off for repairs without emptying the entire system.

A ward kitchen or duty room is usually provided in hospitals of more than ten or twelve beds. Here the washing up and minor cooking operations for the wards are carried out. If placed between the male and female wards, with small spy windows, a night sister can well supervise two wards. There should be a sink at least 2 feet by 1 foot 6 inches by 8 inches placed either in the window or on the wall to the right of the window, with teak capping to edge of sink and grooved draining board; both of these should be hinged for cleaning purposes, as grease quickly accumulates under the edges. The best plate rack is that made with two hard wood sides and galvanised iron wire divisions. A fixed dresser, the wall of the room forming the back, and tiled; the lower part should have two drawers and a hard wood top that can be scrubbed, and above this shelves for crockery, the shelves fixed  $\frac{1}{2}$  inch away from the back so as to be easily cleaned, and without corners.

The ideal operating-room should not be less than 18 feet by 16 feet and have a large north side-light as well as top light made of iron and glazed with clear plate glass where not overlooked. The cill of the window should be at least 3 feet 6 inches from the floor and part of the window made to open as casements. The ceiling and walls can either be of white glazed tiles or enamelled, the floor should be of white terrazzo, and taken up the wall as skirting for at least six inches, with a hollow formed in all angles; the cills of windows should be either of tiles or glass, the doors perfectly flush both sides and four feet wide. It is an advantage to finish an operating-room white as far as possible, it can then be seen at once if not kept spotlessly clean, and one rarely gets too much light. The fittings usually provided are, at least one sink 2 feet by 1 foot 6 inches by 10 inches with white freclay slab on either side and one lavatory basin. There are various devices for turning the water off and on without using one's hands, the simplest and best is to have a cranked length to the lever tap that can be moved by

the arm, and with a projecting rose so that the hands may be washed under running water.

The best heating is obtained by vertical loop radiators with the loops specially wide apart so as to be readily cleaned. The radiators in operating-rooms are often supplied from the hot-water services so that at any time the room can be warmed when the heating boiler is not in use. Radiators are best made to swing out into the room for cleaning purposes; they should be supplied with fresh air by means of glazed pipes or tiled inlets in the outside walls, having removable baffle gratings for access, so that the glazed inlets can be sponged out.

There should be extract ventilators next the ceiling, but if electricity is available it is an advantage to have a small electric fan fixed in the wall next the ceiling on the opposite side of the room to the inlet ventilators. By this means the air can be changed in a few moments.

Bed lockers are required for patients. One made for the lecturer some years ago, and now largely used in general hospitals, consists of a locker below, and the top forms a seat for patient or visitors (thus doing away with the need of a chair), the back is hinged at the top with a movable bracket under it so that when lifted and the locker slung round it forms a table over the bed and behind the back is a cupboard with glass shelves. This is open only on the side opposite to the patient's bed, and is used by the nurse for medicines. The top is covered with opal glass or tiles, and is used for medicine glasses and drinks, and has a wood roller at the back for hanging a towel, and there is a rail above with a clip for the patient's record card.

The ward table should be of the simplest form without turned or moulded legs, the top either of glass, tiles, polished hard wood, or of linoleum wax-polished. Bedsteads should stand away from the wall at least six inches. The cupboards for patients' clothes should be well-ventilated and placed outside the wards. All cupboards should either be taken up to the ceilings or have sloping tops that can be seen from the floor. Baskets should not be used for soiled linen; washable bags are better. Washable curtains are preferable to roller blinds.

The remaining administration rooms should be designed so as to be easily cleaned and with no moulding or places for lodgment of dust and dirt. If corridors are laid with terrazzo, to prevent cracking, it is best to lay them in panels of not more than 9 feet square with slips of wood temporarily placed between the panels and at a later date replaced with cement.

Heating of small cottage hospitals is usually by either open coal fires or by gas stoves, and in the larger hospitals these fires are often supplemented by heating pipes or radiators from a central heating apparatus. The open fires should be of the slow combustion type, and the best are those supplied with external air to a chamber at the back of the stove delivering the warmed air at a height of about seven feet into the ward. A most efficient and perhaps the cheapest possible slow combustion fire can be built with a few fireclay bricks laid edgewise on a solid hearth with an inch space between the bricks.

An inexpensive method of heating the wards of a small hospital is to have a closed type of anthracite stove with hot-water boiler at the back, the front of the stove fitted with mica and the stove fed and the ashes removed from a door at the back of the stove opening into the ward kitchen or the corridor. All radiators wherever possible should have a supply of fresh air fed to them by means of glazed pipe flues in the external walls.

Hot-water services are usually supplied from a boiler at the back of the kitchen range or from an independent boiler, and the storage cylinder for hot water is well placed in the linen room (the latter should have open lattice shelving). It is better to paint all pipes and radiators with metallic paint rather than oil paint or enamel as the latter soon chips off and becomes discoloured.

Lighting by natural light is essential in every part of the hospital, not only in wards, but in every corner and cupboard; daylight is the enemy of disease and also of



dirt. Artificial lighting by electricity is undoubtedly the most efficient and hygienic. Probably the best distribution is to have a central light with a shaded night light, and a bracket and wall plug to each bed or between each two beds, fixed at 6 feet 6 inches from the floor. The light can be shaded so as not to annoy other patients, and the wall plug serves for a hand lamp for the use of doctor or nurse. A cheaper method is to have a hanging wall bracket that can be unhooked and used as a table or hand lamp.

Drainage, where possible, is best connected to a main drainage system, but in out-of-the-way districts it may be necessary to dispose of the sewage by other methods, such as earth closets or a septic tank system, if ample land is available for the purpose. Earth closets involve a good deal of labour, and portable earth closets for those confined to bed are always a nuisance.

Mr. Percy Adams concluded his paper by an illustrated description of various cottage hospitals.

#### DISCUSSION.

Dr. S. Vere Pearson, of the Mundesley Sanatorium, in proposing a vote of thanks, congratulated Mr. Adams on giving such an admirable discourse on a very interesting subject. There was a movement, both political and industrial, for decentralisation, which had shown itself in the direction of hospitals, as in others. The medical profession had witnessed a great development in education, and doctors practising in the country now conducted operations which they would never have dreamed of attempting twenty years ago. It was to be hoped that garden cities would develop, so that people will enjoy the benefit of country air more than they do at present. It was easier to obtain funds for a local cottage hospital than for a big hospital some distance away. The paper, which had been an excellent one, had dealt with its subject in a very practical way. The only adverse general criticism he would venture to make was that Mr. Adams had not, perhaps, considered quite enough the important matter of cost. For instance, teak floors had been advocated, though their cost was rather prohibitive. By the way, what surprisingly expensive things floors and floor-coverings proved to be! Instead of teak or terrazzo, it was possible to have plain concrete with a colour in it, and where the chief traffic passed, as in the middle of the corridors, the concrete could be sunk  $\frac{3}{4}$  in. and filled in with cork linoleum. He quite agreed with the views expressed by the Duchess of Bedford, who was opposed to any ward that by its plan entailed the patients being in a draught, and he believed it was quite possible to give ample air without putting them in a draught. He had been a little surprised to hear Mr. Adams give the minimum height of a ward for six beds or over as 11 ft., as he had imagined that the tendency in the present days of high cost was to keep the wards lower.

Dr. Arthur E. Giles, in seconding the vote of thanks, said he appreciated all the labour and research the preparation of the paper must have meant. He could not help thinking it would remain a classic and a standard. In hospital work there existed a tendency for unnecessary elaboration; for instance, there was a passion for taps which could be turned on by anything except the hands. In the past there had been a very great provision for poor people and very inadequate provision for middle-class persons. Future cottage hospitals were going to be of enormous benefit to the latter, whose contributions for the private accommodation would pay a large proportion of the annual expense. If architects in preparing plans would see there was ample provision for middle-class people they would be doing valuable pioneer work. Cottage hospitals sometimes showed very impracticable ideas.

Mr. E. R. Dolby, consulting engineer, thought that before very long there would be an Act of Parliament prohibiting the use of bituminous fuel in open fireplaces. Anthracite, coke, and oil would be the only fuels permitted.

Mr. W. A. Pite thought Mr. Adams' paper would prove an enormous help to all those about to build cottage hospitals, for it would put them on safe lines. Their younger members particularly would value all the hints. The plan of a cottage hospital must circle round the bed. Architects must try to obtain an absence of corners and all the flat surfaces possible. Hospitals need not be plain because of the absence of ornament. The architecture of a cottage hospital should be the expression of its plan.

Mr. John W. Simpson, before putting the vote of thanks from the chair, associated himself with the appreciative remarks made concerning the paper. Very little had been said on the question of cost. Hospitals had been shown which had cost £1,000. But that was not enough to-day for a labourer's house. His own idea was that architects might get to work and see whether it was now necessary or advisable to erect buildings which would last 100 or 200 years. Both hospitals and educational buildings became out of date as soon as they were built. A hospital should perhaps consist of two sections: one a permanent administrative section, which would not alter much, while the wards would be constructed of some temporary material to last, say, ten years and then be scrapped. He had been surprised and a little shocked to learn from the paper that the isolation of w.c. blocks is no longer looked upon as important. Personally, he would require a great deal of persuasion to believe that to be a sound principle. Cottage hospitals now possessed an extraordinary importance for the middle classes; it enabled them to escape the ruinous charges of nursing homes. Anything which could be done to meet that need would be welcomed by the whole community.

The vote of thanks was then carried by acclamation.

Mr. H. Percy Adams having briefly replied, the meeting terminated.

#### Forthcoming Events.

*Monday, March 21.*—Architectural Association.—Meeting at 34 Bedford Square, W.C. 1. Papers by Mr. Malcolm Sparks, Secretary Guild of Builders, and A. Hull, bricklayer, entitled "The Rise of the Guild of Builders." Council's proposed nominations for Officers and Council for Session 1921-22. 7.30 P.M.

*Tuesday, March 22.*—Liverpool Architectural Association.—Meeting at 13 Harrington Street. Paper by Mr. J. Hubert Worthington, M.A., A.R.I.B.A., entitled "The San Gallo family and their contribution to Renaissance Architecture, with special reference to Antonio il Vecchio." 6 P.M.

—Institution of Civil Engineers.—Meeting at Great George Street, Westminster. Paper by Mr. Algernon Peake, M.Inst.C.E., entitled "The Southern and Western Suburbs Ocean Outfall Sewer, Sydney, New South Wales." 5.30 P.M.

*Wednesday, March 23.*—Northern Architectural Association.—Meeting at 6 Higham Place, Newcastle. Paper by Professor A. E. Richardson, F.R.I.B.A., on "Architecture in Europe and America." 7 P.M.

—St. Paul's Ecclesiological Society.—Meeting at St. Andrew's Court House, 7 St. Andrew's Street, Holborn Circus, E.C. 4. Paper by Mr. G. J. B. Fox, entitled "Some Marshland Churches." 8 P.M.

THE Waterloo War Memorial Committee have accepted the design by Mr. F. W. Doyle Jones, R.B.S., which was exhibited at the Royal Academy, 1919. The memorial, the height of which is 23½ feet, will be erected on the site of the present five lamps at the junction between Waterloo and Seaforth.

At the last St. Andrews University Court it was reported that the committees on the War Memorial and Repair of the University Chapel had approved the proposals submitted by Dr. P. McGregor Chalmers for stripping the plaster from the walls of the chapel and for the erection of an arcade of pillars at the eastern apse of the chapel, which should be a memorial of the members of the University who fell in the war, and should be completed by a series of panels in mosaic work behind the communion table from designs by Mr. Douglas Strachan, the building work to be carried out by Messrs. J. H. White & Son, builders, St. Andrews.



# Rural Signposts.—I.

By Charles G. Harper.



"TEDDINGTON HANDS," NEAR TEWKESBURY.

IT is well worth while, having reviewed the story of the Village Signs Exhibition, to turn to some account of the old rural signposts that may be found, relics of a simpler age, in the highways and byways of this land. Milestones and signposts are found to have been an obligation of Turnpike Trustees and even older authorities, but those obligations were not generally observed, and the oldest such that we possess were the gifts of public-spirited private persons, full of compassionate feeling for wayfarers.

We have, in fact, some very old and curious signposts in the country, but they are not pictorially or historically allusive. They were not, when new, more than straightforwardly utilitarian, however odd they now appear. The oldest signposts surviving in England are those at Teddington, Gloucestershire, and at the crest of Broadway Hill, in Worcestershire.

"Teddington Hands" is the name given to the six-sided stone pillar which stands at the junction of roads between those neighbouring places of oddly similar names, Toddington and Teddington, near Cheltenham and Tewkesbury. The six arms, or "hands," of this quaint survival point to Evesham, Stow, Cheltenham, Pershore, Winchcomb, and Tewkesbury. They must in olden days have greatly heartened many a weary and puzzled traveller, for this spot was then a wild, solitary, and unclosed heath—a scene which pretty generally characterised the England of olden time. Inscriptions on a brass plate, and cut into the stone, tell us who was the benefactor who set up this kindly aid for the strayed traveller:—

Edmund Attwood of the Vine Tree,  
At the first time erected me,  
And freely he did this bestow,  
Strange travellers the way to show.

To this was later added:—

Ten generations past and gone,  
Repaired by Charles Attwood, of Teddington.

And a final addition:—

Ten generations past and gone,  
Repaired by Alice Attwood, of Teddington.  
August 10th, 1876.

Thus the exact date of "Teddington Hands" is not exactly stated; but, if we take a generation to mean thirty years, we are confronted with the proposition that the Edmund Attwood who was the original benefactor must have flourished about 1276. The "Vine Tree" is an ancient farmhouse in the adjacent village

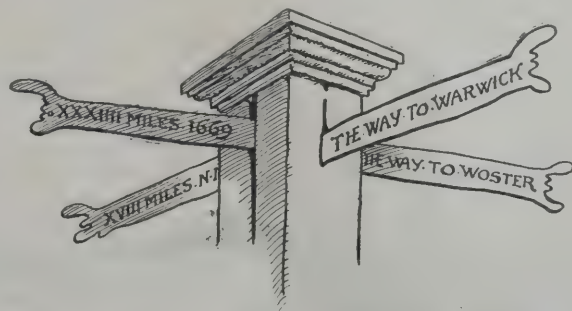
of Teddington. There the Attwoods were once persons of consideration. Alice Attwood was the last of the family, and died here in her eighty-third year.

The Broadway Hill signpost was set up in 1669, as



THE OLDEST SIGNPOST, BROADWAY HILL, WORCESTERSHIRE.

appears from the date on the four iron arms, which thus afford a remarkable example of endurance. The wooden post has, of course, often been renewed. The benefactor, whose initials, "N. I.," appear, was one



THE OLDEST SIGNPOST IN ENGLAND.—DETAIL.

Nicholas Izod, a local gentleman. The mileages given are all incorrect. This is due to the circumstance that at the time when this post was set up there were





EIGHTEENTH-CENTURY MILE PILLAR, WEST WYCOMBE.

actually three kinds of mile recognised and in use. Thus in Camden's great work "Britannia" we find these three measurements set forth: The "Great," or geographical, mile of 2,280 yards; the "Middle," or "Statute," mile of the Act of Parliament of 1593, measuring 1,760 yards (the mile of to-day); and the "Small," or Roman, mile.

Thus, those iron arms, using the first of these standards of measure, often styled the "computed mile" (although the statute mile had already been established by the legislature for 76 years), make "the way to Oxford 24 miles," and those to Warwick 15, "Woster" 16, and "Gloster" 18, appear much shorter than really they are. The actual distances are respectively 33, 24, 23, and 26 miles. A shorter, modern signpost standing within the shadow of the old one does not direct to such ambitiously-long distances, but contents itself with the miles to places closer at hand: Stratford-on-Avon, Stow-on-the-Wold, and those other places of picturesque compound names which haunt the imagination, Moreton-in-the-Marsh, and Bourton-on-the-Water. It should be added that the old iron arm of Nicholas Izod's "handing-post," as the country folk call signposts in those parts, pointing to "Gloster" directs now to an old route by way of Stumps Cross and Campden Lane, which has long been merely an untraveller track; a most undesirable enterprise to attempt.

But in his time this benefactor deserved the thanks of those who went the roads, as, indeed, did that person who reared the stone pillar at Wroxton, near Banbury, which stands on an open plain beside what was once a lonely way. Four fat sculptured gauntleted hands on its several sides point to London, Stratford-on-Avon, Banbury, and Chipping Norton. "Wroxton Pillar," as

SEVENTEENTH-CENTURY SIGNPOST, WROXTON.  
NEAR BANBURY.

it is called, was placed there nearly two hundred and fifty years ago, as the much-weathered inscription states: "First given by Mr. Fr: White in the year 1685."

Mr. Francis White's pillar looks in that situation truly monumental, and of an architectonic quality. Nothing in the surrounding flatness interferes with it. But for a combination of impressive dignity and picturesque setting commend me to the granite pillar surmounted with a ball, which stands at the approach to West Wycombe from the busy chair-making town of High Wycombe. As you come towards that curiously old-world village there rises suddenly that bold outlying hill of the Chilterns, whose ancient name was Haveringdon; and just in advance of it, where a road goes off to the right for Prince's Risborough and Aylesbury, is this granite pillar, which you may style, as you will, either a signpost or a milestone. It was placed there, with a true sense of dignity and composition in landscape, by that eccentric and wealthy squire and peer, Sir Francis Dashwood, afterwards Lord le Despenser, in 1752; whose ancestral seat, West Wycombe Park, is still in the hands of his descendants.

He designed it to celebrate the completion of the fine, straight, new two-miles length of road which then connected the two Wycombes in place of the narrow and crooked old way. The four sides of the capital of this roughly Doric column bear the legends: "F. Dashwood, Æræ Christianæ MDCCLII"; "From the County Town XV"; "From the University XXII"; "From the City XXX." The first two places named, Aylesbury and Oxford, are each, in fact, one mile less than the distances given; while to the City of London the mileage is thirty-four. But if by "the City" Dashwood meant, roughly, London as a whole, the distance is thirty-one miles, calculated from Tyburn Turnpike, whence this road through Wycombe to Oxford was measured. A modern signpost close by gives the lie to all these distances.

Of course, Dashwood, being of the eighteenth century, a wealthy squire, and eccentric, could not endure to leave that wonderful hill of Haveringdon in its natural condition. The old squires were like that, as we see plentifully, all over England. A hill seemed to them to be incomplete without an obelisk, a "folly," or some sort of a monument to occupy its skyline. In this case, the great Dashwood built on the hilltop that extraordinary church which still crests this eminence and engages the attention from afar of strangers, who wonder what it can be. They may well be uncertain, for this weird building, erected in 1763, is little like any Christian church. That might well be, considering alike the period of its building and Dashwood's own peculiarities as an atheistical person and a moving spirit of the once-notorious "Hellfire Club." It looks like a factory, and has a huge wooden ball on the summit of its tower, said to be large enough to hold nine persons. The interior, in the likeness of a large room, or concert-hall, has its chancel ceiling painted with a representation of the Last Supper; but otherwise, it looks even more pagan than the exterior. Lectern and pulpit exist only in the form of armchairs, standing on what appear to be chests of drawers. These are really steps for mounting to them, as appears when the drawers are pulled out.

This was, at any rate, the order of things when last I was inside; possibly some scandalised and reforming later incumbent has made alterations. In any case, the church is so difficult to come at, by reason of that formidable hill, with its steep lynchets, that few ever visit it; and a small modern church stands below, for the benefit of those for whom this climbing enterprise is too much.

The freak church, however, does not complete the tale of Despenser's odd activities here. East of it is the weird six-sided "mausoleum," open to the sky, in which





DUNSTON PILLAR ON LINCOLN HEATH, THE  
"LAND-LIGHTHOUSE."

re buried several members of the "Hellfire Club," including the founder himself, in some considerable state. From this point you look down in the direction of High Wycombe, and you cannot fail to be impressed by seeing how straight the road makes for this hill. One notices, too, how artfully the imperious Dashwood placed his ideoseous mausoleum here, with an avenue of trees leading up to it: thus creating the preposterous idea that the mausoleum itself is the objective and final goal of this highway from London.

If I were asked what, in the fullest sense of the term, is the largest signpost in England, I would point to another of this eccentric person's works, the lofty column, in what was once Lincoln Heath, called "Dunston Pillar." It stands about 100 ft. in height, and is visible for great distances across those widespreading levels; as was intended to be. For in 1751, when it was built, Lincoln Heath was yet a wild, wide expanse, roadless and unenclosed. It ever had been a menace and a danger to wayfarers, and he who seeks to know something of its terrors will find them recorded, in no uncertain way, in the burial-registers of the various parishes bordering this ominous region. Lincoln Heath, long since enclosed and cultivated, with good roads across it, lies between Sleaford and Lincoln, and is some sixteen miles across. In Leasingham and other registers are records of those who perished here of exposure and exhaustion, and at Potter Hanworth and Blankney are lands left by inhospitable people of old, the rent of those acres to pay for the nightly ringing of the church bells, so that lost travellers might be saved. And not only the terrors of storm and snow rendered Lincoln Heath so fatal. The highwaymen (who, at any rate, knew *their* way about) testified it from early times, as used to be evident by an epitaph in Lincoln Cathedral: "Here lies John Rauceby, formerly canon of this church, who was with malice

prepnese nefariously slain on the Haythe in the year of our Lord 1388 by William. . . . God have mercy upon his soul." From time beyond the memory of man, the name of the assassin had been obliterated; and now I think the epitaph has altogether disappeared.

Dashwood, who at that time had not yet succeeded to the ancient title of Dispenser, was a public benefactor in setting up Dunston Pillar, in a lonely situation in the parish of Dunston and on the Heath, 4½ miles from Lincoln. It was surmounted by a lantern, lighted every evening at dusk. But in the course of the next twenty-five years the present road was made, and conditions in general had changed. The "land-lighthouse" was no longer needed; and so the lantern was at last, in 1810, removed and replaced in that year of King George the Third's Jubilee, by the statue of His Majesty which may yet be seen there. Dunston Pillar was said to be the only "land-lighthouse," but that was not the case. A similar beacon was established on the tower of Great Weldon Church, Northants, to guide travellers at night through Rockingham Forest. It was lighted by twelve candles. The Forest has long since disappeared, but the lantern is yet there, and, sentimentally, it is lit annually on Christmas and New Year's eves.

Dashwood's characteristic way of inscribing his curious buildings is evident on Dunston Pillar, which bears not only its name, but the legend:—"Columnam hinc utilitati publicæ DDD F. Dashwood MDCCLI"; together with "From the City CXX miles"; "To Lincoln V miles"; the mileages, as usual, incorrect.

(To be concluded.)

MESSRS. DAVID BARCLAY NIVEN, F.R.I.B.A., and Herbert Wigglesworth, F.R.I.B.A., write us that on and after March 21 they are removing from their present offices, Gwydir Chambers, 104 High Holborn, W.C., to 7 John Street, Bedford Row, W.C., and that their telephone number will be Museum 1733.

MR. JAMES SAMUEL HOLLIDAY, of Glenthorne, Cheam Road, Sutton, chairman of Holliday and Greenwood, Ltd., contractors, who built the Victoria and Albert Museum, one time President of the London Master Builders' Association, President of the Institute of Builders, and Chairman of the London County Council School of Building, who died on December 4, has left £9,403 gross and £8,216 net.

IN connection with the recent architectural competition for designs for the Trinity College, Dublin, War Memorial, the Executive Committee at their last meeting adopted the following resolution:—"That the Executive Committee are of opinion that the war memorial should take the form of a Hall of Honour, as shown in Sir Thomas Deane's plan, in connection with which it would be possible to erect a Library Reading-room similar to that appearing on the said plan, it being understood the modification of the plan may be introduced if deemed desirable."

WEST HARTLEPOOL County Licensing Justices have granted an application by Messrs. Cameron & Co., for a licence for an hotel, to cost £15,000, to be erected on the Graythorp Estate, near Seaton Carew, where Messrs. Gray & Co. are constructing a shipyard. Details were given of the progress of work at the adjoining garden city of Graythorp, where it is proposed to erect 900 houses, as well as public buildings, hospital, &c. The population of the garden city, when completed, was stated to be estimated at 4,000 or 5,000.

THE death has taken place at 12 Belgrave Crescent, Edinburgh, of Mr. J. M. Dick Peddie, a well-known Scottish architect, who was for many years prominent in the business life of the capital. Born in 1853, he was a son of the late Mr. John Dick Peddie, R.S.A.—at one time member of Parliament for the Kilmarnock Burghs—and he received his early education at the Edinburgh Academy. After spending some time in Germany, Mr. Peddie became assistant to Sir Gilbert Scott in London, and he subsequently returned to his native city, and joined his father in the firm of Peddie & Kinnear. Many prominent Edinburgh buildings were designed by him, including the Caledonian Station Hotel, the offices of the North British and Mercantile Insurance Company in Princes Street, the Bank of Scotland, and the Standard Insurance Company, George Street. He was also the architect for several large buildings in Glasgow.



## An Architect's Claim.

BEFORE Mr. Justice Bailhache in the King's Bench Division, on March 14, was heard an action by Mr. Hal Williams, of Salter's Hall Court, Cannon Street, London, against Phillips Magnetos Company, Birchett Road, Aldershot.

Plaintiff claimed £337 9s. 6d., architect's fees in preparing plans for the erection of a factory for defendants.

Mr. Hawke, K.C., for plaintiff, said the defence set up was that there was a term in the plaintiff's employment that plaintiff was to devise plans for a building not to cost more than £4,000 to £5,000, and that he had exceeded that. Secondly, defendants said the plans involved building over a sewer which by the Public Health Act could not be done without leave. Defendants were a limited liability company and carried on business at Aldershot. In October 1917 they were apparently going to purchase a piece of land in Cranmore Road, Aldershot. The piece of land in contemplation was partially level and then went uphill. In the autumn of 1917 and the beginning of 1918 there was correspondence and a meeting between plaintiff and Mr. Phillips, representing the defendant firm. A sewer ran through the flat part of the land, and Mr. Williams pointed out to Mr. Phillips that except at very great expense the factory could only be erected on the level part of the land, and that the sewer could not be built over without consent. Mr. Phillips said that would be all right, or something to that effect, and Mr. Williams assumed from that that Mr. Phillips had got the necessary consent, or, at any rate, would get it before he bought the land for which he was then in negotiation. Plaintiff also pointed out there was an existing drain or ditch which would have to be filled in and diverted. Defendant now said that at that interview he made it a term that the cost of the factory was not to exceed £4,000 or £5,000. Plaintiff would tell his Lordship nothing about cost was then mentioned. Plaintiff made a survey and was paid for it. Then in December 1918 the question of building arose, and in that month a further interview took place at which it was arranged plaintiff should take some levels and prepare preliminary sketches. Plaintiff suggested it might be a good thing to have a canteen or mess-room as the site was remote from accommodation of that sort, and Mr. Phillips fell in with that idea. He also insisted the place must be capable of further extension. Plaintiff was then given instructions to get on with the plans. The preliminary proofs were sent on December 19. What had misled the defendant apparently was this: he went to the Clerk of the local District Council and asked if there was any by-law to prevent building over a sewer, and the Clerk said "No." The fact was it was not a by-law that prevented it but an Act of Parliament. The result was there had been a misunderstanding. Plaintiff assumed from defendant saying it was all right that he had got consent to build over the sewer, for such consent was frequently given with proper safeguards. In January there was a general discussion as to cost of the building, and defendant told plaintiff his builder had said he could get the work done at fifty per cent. above pre-war cost. Plaintiff said he would be exceedingly lucky if that was the case, as his experience was building was costing two and a-half and three times as much as pre-war price. Further plans were got out and quantities taken out. On March 28, plaintiff again reminded defendant of the necessity for consent to build over a sewer, and again Mr. Phillips said there would be no difficulty about it. When the plans were submitted to the local authority they refused to pass them because the 1875 Act prevented building over a sewer. After this defendants wrote to say they had decided not to build according to plaintiff's plans as the estimates were too high, and they had been let down not only in delay but in having the plans rejected. Mr. Hawke pointed out there was nothing in that letter about a sum of between £4,000 and £5,000 having been mentioned. Plaintiff replied that he had never been asked to give any estimate of cost, that Mr. Phillips had approved the plans,

and that he had all along called Mr. Phillips' attention to the sewer difficulty.

In cross-examination by Mr. Rawlinson, K.C., for defendants, plaintiff said he took no notes of what transpired at the interviews with Mr. Phillips.

Defendant gave evidence in conflict with that of plaintiff regarding the price of the factory, and as to the sewer he told Mr. Williams he said that he had seen the Clerk to the Council who had told him there was nothing in the by-laws about building over the sewer. Mr. Phillips (defendant) did not know anything at that time about the prohibition in the Public Health Act, and plaintiff did not mention anything about that Act. He eventually got the factory built from other plans at a cost of £6,328 the factory being built partly on the hill and avoiding the sewer. He bought in addition a hut to be used as a canteen.

Cross-examined by Mr. Hawke, witness said at first he told plaintiff the factory was to cost £1,500 to £2,000 and in any case was not to exceed £3,000.

How is it you never mentioned that in your correspondence?—Because it occurred at an interview.

His Lordship said he believed both parties were telling him what they thought to be true. He was in favour of plaintiff in the matter of cost, but the question of the sewer was a more difficult matter. It seemed to have been plaintiff's duty to see that this matter was right.

Mr. Hawke pointed out that Mr. Phillips had assured plaintiff that was all right.

His Lordship, giving judgment, said he found as a fact that Mr. Phillips did not at any time put an effective limit on the sum which was to be spent upon the building according to the plan Mr. Williams prepared. The other point was that this factory was shown to be built over a sewer. Mr. Phillips appeared to have thought that the prohibition from building over a sewer was to be found in the by-laws. In his Lordship's judgment it was the business of Mr. Williams, as an architect having charge of this matter, to tell Mr. Phillips of the difficulty there would be in building over a sewer, and tell Mr. Phillips of the necessary consent that he would have to obtain from the District Council. Mr. Williams evidently did not tell Mr. Phillips that until his letter of May 12, after the trouble had arisen. Assuming that his own statement was accurate and that Mr. Phillips told him it was all right, Mr. Williams, as an architect and a professional man who knew about those things, treated this matter too lightly. He ought to have seen that Mr. Phillips had, in fact, the effective consent which was required by the Public Health Act, 1875. There was a failure to exercise due care on the part of Mr. Williams over the matter of the licence required, which rendered these plans useless. That being the case he could not recover for the fees to which he would otherwise be entitled in respect of these plans, which in other respects as far as they were concerned, seemed to be in accordance with the instructions he received from Mr. Phillips. The result was that there would be judgment for the defendant, with costs.

## "The Architect" Fifty Years Ago.

MARCH 18, 1871.

THE INSTITUTE SECRETARYSHIP.

LAST week we published the letter addressed by Professor Donaldson to the President of the Institute of Architects, Mr. T. H. Wyatt, and circulated amongst the members, in which he complained of a proposal submitted by the President respecting the office of Secretary. It will be remembered that the Professor's view of the proposal was that the paid Secretary would be placed in a position of authority over the Honorary Secretary; and that he, therefore, must decline to serve any longer in the latter capacity, or even to remain a member of the Institute.

MR. DENDY WATNEY, a partner in the firm of Messrs. Daniel Watney & Sons, and member of the Council of the Surveyors' Institution, is to be chairman of the housing rents tribunal set up under the Housing Act (Assisted Housing Schemes) Regulations, 1919.



## Zoning and Town Planning.

At the meeting of the London Society on March 11 a paper was read by Mr. I. G. Gibbon, C.B.E., on the above subject, and from it we give the following extracts:

The two principal elements in main town planning, or, shorter still, he said, in coining a new phrase, "main-planning," are the fixing of the principal lines of communication and zoning. Of communication we have had much consideration within recent years; would that we had more of practice.

Zoning, on the other hand, has been largely neglected. Both elements are essential to a proper town-planning scheme. While the principal lines of communication may be compared with the veins and arteries of the human body, zoning may be likened to the skeleton which determines what functions shall be performed by the different parts. As the notion of zoning is not very familiar in this country, it may be of advantage to state quite briefly what is meant by it.

Zoning is really nothing more than securing that each district be put to such use as to obtain from it the largest measure of advantage in utility and in amenity, bearing in mind the existing material and social conditions. It means the locating of industries in areas that are best suited for them, and the reserving for housing districts best adapted for this purpose; it covers also the provision of open spaces of different kinds sufficient in extent and number and conveniently placed. All these things are required to be done well beforehand if the best results are to be obtained at moderate cost. There is a rich reward or foresight in these matters, a foresight which can be checked from time to time as developments proceed—and a very big plan, however wisely and thoughtfully prepared, must inevitably need revision from time to time in the light of changing circumstances.

One question which is the subject of much debate just at present in the United States is that of the number of zones in which a town or part of a town should be carved, and there has been a tendency to minute elaboration. There is now, however, a decided reaction, and the tendency is—a tendency which he hoped would prevail in this country—not to attempt to specify too many zones. In any town of considerable size it will probably be found desirable at least to provide for different zones for residences, business, light industry and heavy industry, and, of course, open spaces, with definite reservations for buildings of special importance, such as the civic centre.

The degree of zoning will depend, obviously, on the size and character of the town. Generally, the larger the town the more the number of zones into which it can with advantage be divided. Whereas for London there should be many zones, for Guildford there should be few. To remove a misapprehension that may possibly occur it is not suggested that in any town, big or small, there should necessarily be one area of land, and one only, set aside for each particular purpose. In any of the very large towns there will, of course, be many areas allocated for the same purpose, that being the purpose for which they are most needed and best suited for the good of the community.

Town planning is not a matter simply for the architect, the surveyor, or the engineer, though the aid of all these professions is required. It is something much wider, something that requires a large combination of qualities and learning and for which special training is required, training for which the facilities are wholly inadequate at the present time. He mentioned, in this connection, that measures are now in hand by which, he hoped, it will be possible to provide in London a more complete course of training for those who need a knowledge of town planning, not only those who wish to undertake it as their primary profession, but also for those whose duties make it imperative that they should have a good acquaintance with the subject. The time is soon coming, he hoped, when a sound course of civics, including the related social and economic as well as the political subjects will be regarded as indispensable for any person

who hoped to occupy a responsible position in municipal service, whether administrative or technical.

### LONDON: HISTORICAL.

With regard to this continent of a City, this London of ours, how does zoning apply to it? . . . He who plans for an historical city will, if he be wise, saturate himself in its story, for a plan is not something to be ruthlessly imposed on the City, but a form and framework to be developed out of its past and adapted to its present and future needs.

London has two well-defined chief centres—Court and Government in Westminster: finance and trade in the City; and of these two—he said it with all modesty—the latter is the greater. The City which originated as a trading centre, still remains the greatest trading nucleus of the world. High finance is only a quintessential form of trading, and so we find the big trading connections with threads of business to the remotest corners of the world gathered in this little corner of the earth; but we notice also the growing tendency to push the grosser part of trading, the docking and the warehousing, further and further east as traffic becomes more congested and ships larger, and the demand for accommodation within the City for what one may term the office side of business more and more acute, and the pressure for accommodation for this purpose increasingly more severe.

The other centre likewise has been transformed, and has increased its shell amazingly. The Whitehall of the gay Court has become the Whitehall of the bureaucratic ant; the zeal of the Press sometimes prefers other animal comparisons—limpets and Dux and Drakes, not to mention strange Dillys and Dallys; but, being of a more exact mind, we shall stick to ants.

As the functions of Government have grown, so have its offices and instruments; and Whitehall has become a group of huge ant-hills to the profit of architects, for these multitudinous activities. . . . Around these directly governmental functions have grown up a large number of others concerned largely with Parliamentary or other governmental work, not only Parliamentary agents and the Parliamentary bar, but also members of the engineering and other professions whose activities lie mainly in the sphere of public works.

Both in the City and at Westminster we find, as was almost inevitable and as we shall find in other zones of London, that no room has been allowed for expansion; and that therefore when expansions become imperative they have to be carried out at heavy cost; buildings erected within perhaps comparatively recent times having to be reconstructed for new uses or altogether demolished. And this is one urgent reason for a town plan of London; we cannot hope to provide all necessary outlet for expansion; we cannot divine the future with eyes so keen. But we can at least, by reasonable foresight, prevent the erection now of substantial buildings which within a few years may have to be demolished because the land is urgently required for more profitable uses. Cannot this be left to private interests, it may be asked? Experience shows conclusively that it cannot. Indeed, individual interests may not suffer in such a case; it is the community that pays.

He turned his attention next to the always interesting neutral ground between Westminster and the City. . . . On the one side is Fleet Street and the Press, the Fourth Estate of the Realm; and, though not so Olympian as it would sometimes have us believe, still a mighty power in the land. Next comes the Law, with its straggling Courts of Justice, typical of the gradual growth of common law in England as compared with the compact and dominating structure of, say, the Palais de Justice at Brussels, emblem of the more logically compact, but not more effective, Roman Law. . . . A most interesting study would be to extend this survey of the automatic zoning which has taken place in the past—how in the neighbourhood of the Court there grew up the "West End"; how, adjoining this residential area of influence and of wealth, and between it and the City there arose the principal shopping centre of London; how, also,



still near the residential area, but, mark you, behind the shopping centre, there developed the greatest medical centre of the world; then, again, an amusement zone, of theatres and (in these days) music-halls and cinemas within that triangle of Court, residences, and City; and also within that same triangle, as a matter of course, the hotels for the moving population of a great city.

#### LONDON: FUTURE.

There are two facts which he thought should be borne firmly in mind in dealing with any proposals as to the future of London. To the first he had already referred—the need, in any wise plan of development, of an intimate knowledge of London's past as well as present, and of a clear understanding of the forces which have governed her growth. The second is equally important—the urgent need of further research in the conditions of town life and the lamentably inadequate provision now made for it. He referred again also to the principle, obvious he had little doubt to all in the room, that there should be a plan of development for London as a whole, not, of course, a detailed plan, but one providing for the main essentials of communications and zoning—including open spaces, for which the groundwork has already been accomplished by the Society. . . . There is no power at present to enforce town-planning schemes for built-up areas of land. He had no doubt that the power would come in the future; but for the moment local authorities generally had their hands sufficiently full with plans for the open lands within their sphere of influence.

But that was no reason why plans should not be prepared now especially for London, for the built-up areas. On the contrary, as already explained, they are urgently wanted not only to control big improvements, but also in order that, on a voluntary basis (in any event, a useful preliminary to any compulsory scheme) there may be some definite plan to which the large amount of rebuilding which is always proceeding in a live city may conform. Incidentally this great problem is no reason why the London County Council should not town-plan the few large remnants of open land which are still left within the Administrative County. . . .

(Mr. Gibbon showed some most interesting maps of the great Zoning scheme of New York, the most remarkable example of zoning yet undertaken—adopted in July 1916.) The experience already gained during its operation shows not only that it works but that it pays in pounds, shillings, and pence, having a marked effect in preventing depreciation in values. It is significant that, when the scheme was under consideration great business interests in Fifth Avenue, Broadway, and other streets, went so far as to insert advertisements in all the New York papers pressing for the adoption of Zoning. This New York has achieved, to her great benefit and profit: How long would London lag behind?

As to the zoning of Greater London there are a number of obvious proposals which might be discussed, such as the development of the river lands of the Lower Thames, which has already taken place to a considerable extent and will proceed still more quickly when the present depression passes: the need of reserving suitable areas for heavy industries for which water-carriage is of extreme importance; the advantage of reserving housing sites on the higher lands so that once again the movement of population may be north and south, and so that we may have industries on the flat lands and housing on the higher lands.

Another question is, to what extent, if at all, it is desirable to place any discouragement, financial or otherwise, on the establishment of new, or the expansion of old factories or workshops in the inner zone of London, having regard to the grave congestion of passenger and goods traffic—an attractive proposal at first sight but certainly not to be adopted without very mature consideration, always bearing in mind that wisdom lies in not interfering with industrial development unless a case has been fully made out for doing so.

We were also confronted here with a difficult problem of local government. It might be advantageous for the community as a whole for, to take an example, the London County Council to encourage large works to migrate outside its borders. But the London County Council would then lose the rateable value of these works while possibly retaining the costly liability of providing the public services, education in particular, for the families of many of the workers. Is the London County Council, therefore, in these circumstances likely to encourage emigration however nationally desirable? This is a problem of local government that calls for solution; it is a wider problem even than he had stated, and showed how intimately town planning is knit with general questions of local administration. . . . One other matter to which he referred was that of open spaces. London was eating up the open land. The green fresh lungs of the giant city, the playing fields and recreation grounds, continue steadily to be consumed by the dreary miles of streets. The process will continue—and at the same time we are adding to the leisure hours of the great mass of the population . . . and immediate steps are urgently necessary with a view to providing in perpetuity for those ample open spaces which are vital if a great city like London is to thrive, and so that the good work which the City Corporation and the London County Council have already done in this direction may be extended even far beyond what has already been achieved.

The time is ripe for doing, not talking. It is high time that the reproach, that this capital city of a mighty Empire has no plan, should be removed. . . . A body of public-spirited men of knowledge and experience should immediately take steps to prepare with or without the co-operation of constituted authorities the essential outlines of a town plan for Greater London, to "main-plan," as he termed it, Greater London, that is not only to plot out the chief arteries, a work where much has already been done and excellent maps published by the London Society, but also to zone the whole area. For this purpose there would be required two Committees. The first a General Committee, which should be representative not only of experts but also, fully, of industrial, commercial, and financial interests. . . . The second body, the Executive Committee, should be a more expert body, by which proposals to be embodied in the plan should be prepared for submission to the General Committee. This proposal is not new. On the contrary, it is simply a development of the admirable work already undertaken by the London Society. It is simply following up the labours of those pioneers of the Society to whom London owes so great a debt. The Earl of Plymouth, in the letter which he issued in October 1914, said:

"All must feel that the best is not being done with London. It has grown up haphazard; in spite of many efforts its development is still haphazard. Until there is one great uniformly-executed plan to refer to, the eighty and more local authorities who control our monster community of seven and a-half million people in 700 square miles will go on each making its own changes without any sort of relation to the whole. In the London Society the nucleus of an organisation to head this movement for a plan already exists."

What he suggested was that the work then commenced be extended by undertaking the essential work of preparing a zone plan of London without which no town plan can be complete. It may be urged that this was work for the State and the local authorities; and to be enforced by compulsory powers. He said, emphatically No—not at present; these may come, but there is much preliminary spade-work to be done. We are too apt, while in one short breath denouncing bureaucracy in the next breath of ecstasy, to call for compulsion.

A PUBLIC meeting in Berwick has unanimously approved as the town's war memorial a design by Mr. Carrick, Edinburgh. The memorial, the dominating figure in which is that of Victory executed in bronze, is estimated to cost £2,500.



# WESTERN PINE DOORS

"RED CONE BRAND" (Regd.)

FOR STAINING. FREE FROM KNOTS.

WE ARE PLEASED TO  
ANNOUNCE THAT OUR  
SPECIAL DOORS ARE  
AGAIN AVAILABLE AND  
YOUR INQUIRIES ARE  
INVITED.

BRYCE, WHITE & CO.

28 WHARF ROAD, CITY ROAD,  
LONDON, N. 1.

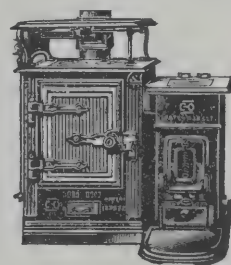
Telephones:  
North 715.  
Clerkenwell 3738.

Telegrams:  
"Myosotis, Hox, London."



are cordially invited to visit our STAND No. 223, Row L, Building Trades Exhibition, Olympia, April 12 to 26.

## For Hot Water and Cooking



A plenteous supply of really hot water cuts housework in half, wash-day loses its dread, and all household cleaning is simplified. The primary function of the "Eco" is hot water supply.

Supplies Hot Water **The ECO** Heats the oven

### Combination

But the "Eco" does more—the "waste" from the coke or anthracite fired boiler keeps the cooker hot. A few minutes consumption of gas or electricity is sufficient for a whole day's cooking. A real labour saver and remarkably economical. Consumes less than 1 lb. of anthracite per hour.

Prices and full particulars  
are given in our free list.

**R. JENKINS & CO., Ltd.,**  
ROTHERHAM.





## Correspondence.

### The Architectural Association and its Needs.

To the Editor of THE ARCHITECT.

SIR,—I was extremely glad to read the letter from Mr. Scott, addressed to you in your issue of the 11th inst., in reference to the teaching of the Architectural Association, as I have long held that the only means of raising the general quality of architectural design is by tradition.

If an English school of architecture could only be founded it would be such an advance on present conditions that we should find in a comparatively short time an all-round improvement in design of the greatest magnitude.

Originality is right in its right place, but only a few can be original, whereas the mass of workers would be assisted, strengthened, and upheld by working on traditional lines.

Seeing that there are other schools teaching architecture as well as the Association, I think they ought all to put their heads together and form some central board to consider this important subject, and act in harmony with one another.

Meanwhile the support of everyone interested in the advancement of architecture should be given to the Association which is doing such good work.—Yours, &c.,

South Hill, Woking.

HORACE FIELD.

March 12, 1921.

### The Architect's Pupil.

To the Editor of THE ARCHITECT.

SIR,—With numerous readers in South Wales I have followed the interesting correspondence in your columns *re* The Architect's Assistant and Others. I note there is doubt expressed in some quarters as to the possibility (even desirability it almost seems) of paying the assistant architect a salary upon which he can live in an adequate manner. One correspondent appears to hold the view that entrants should be prepared to take upon themselves a kind of monastic vow of poverty, and eschew mundane and monetary affairs; living for art's sake alone, until they have gained a dispensation from same by setting up in practice for themselves.

For just as the young citizen of the U.S.A. is told he has the chance of becoming a future President, and as Napoleon is credited with the view that no private soldier's kit was complete without "Baton, Marshal's, Mark I," so the pupils who flock to what is now admitted to be an overcrowded profession have about the same prospect of all becoming practising architects.

Without dwelling further upon these abstruse theories, may I place before your readers, by the desire of some of those PUPILS directly concerned, who have completed, or nearly completed, articles, and who, after having paid heavy premiums and put in long hours of study at evening classes, find that the practical result achieved as far as future prospects are concerned is commensurate with that of the boy's occupation in the famous picture—further immortalised in the latest popular melody.

Though the idea of youths (and even in some cases under the Government training scheme for married men) working for nothing for architects, and paying in the former cases to do so may be a Gilbertian idea, it has a very serious side, when, as in too many cases, at the termination of articles they find themselves cast adrift to carry on their careers and find employment as best they may amongst a crowd of competitors.

If professional etiquette debars a practitioner from advertising for clients, surely ethical and moral standards should also prevent him from advertising for pupils at times when there is no reasonable likelihood of their being absorbed in the profession and he himself is not prepared to offer remunerative employment for them later on. While not wishful to make any reflection on architects who conscientiously discharge their duties with regard to their pupils, it must be admitted that the present pupilage system is subject to grave abuses, and that Pecksniff has some successors in modern times. Reform is overdue, and action should be taken to limit the number of those entering the profession to a reasonable number, and that some test should be applied, and be made compulsory, to ensure that these should be composed of persons who appear to have the abilities and qualities to succeed.

Mr. C. McArthur Butler's suggestion of a year of probation also might be helpful if adopted, together with a

proviso in the articles to employ satisfactory students completion of training.

From what quarter may we look for reform? The established bodies do not seem to have made much headway in this direction, and it appears that this question has now been discussed owing to the action taken by the Ass'tants' Society.

I hope some scheme may be devised to clear the profession from its chaotic condition and obtain—

March 10, 1921.

FAIRPLAY.

[We are glad to have the above interesting letter, the contents of which we are in general agreement. We now close this correspondence.—Ed.]

## Competition News.

MEMBERS of the Society of Architects are requested to take any part in the Renfrew and Rothesay War Memorial competitions without first ascertaining from the Society that the conditions have been approved by the Council.

THE Queensbury War Memorial Committee invite architects, monumental sculptors, and others to submit designs for a war memorial in local stone, at a cost of £80. For further particulars apply to the Secretaries, Council Offices, Queensbury.

MR. GEORGE HUBBARD, F.S.A., F.R.I.B.A., the assessor in the competition organised by the East Ham Hospital Committee for a general hospital to cost £40,000, has made his award as follows:—(1) F. E. Minnie and C. B. Smith, 214 Bishopsgate, E.C.; (2) Captain H. T. Wright, The Grove, Gosforth, Newcastle-on-Tyne; (3) F. M. Cook and W. M. Twist, 83 Colmore Row, Birmingham.

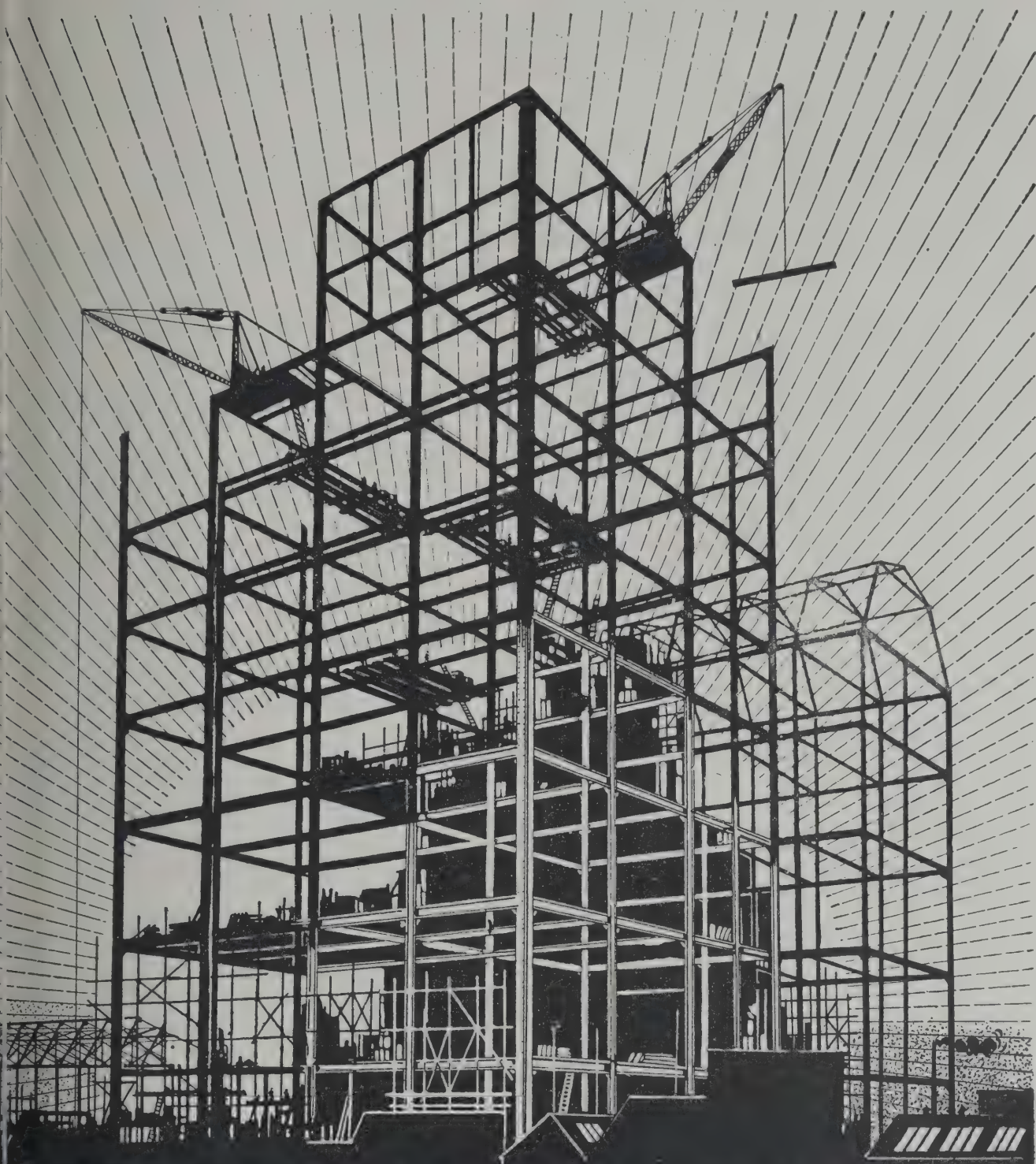
THE R.I.B.A. Competitions Committee desire to call the attention of Members and Licentiates to the fact that the conditions of the Renfrew and Rothesay War Memorial Competitions are unsatisfactory. The Competitions Committee are in negotiation with the promoters in the hope of securing an amendment. In the meantime Members and Licentiates are advised to take no part in these competitions.

THE Wick War Memorial Committee invite designs for a memorial, to hold about 300 names, with rank and unit, at a cost not more than £2,000, exclusive of lettering. The memorial will take the form of a symbolical bronze figure with granite pedestal and base. A prize of £20 will be awarded to the competitor whose design is selected, and a prize of £10 to the second best competitor. Drawings (which will be returned) and estimates should be sent by April 1 to the Honorary Secretary, Alexander Bruce, Town Clerk, Wick.

MR. G. WASHINGTON BROWNE, R.S.A., has awarded first place in the Lockerbie War Memorial competition to the design (No. 84) submitted by Mr. James B. Dunlop, A.R.S.A., F.R.I.B.A., of Edinburgh. The assessor, in the course of his report on the 121 designs, says:—"I design No. 84 the dignity attained by the fine setting upon the severe platform, the restraint of the pedestal, which nevertheless has a highly decorative effect by reason of the proper placing of the panels and enrichments, the vigour and eminent quality of the figure of 'Victory,' all combine to constitute a design of exceptional distinction, while the dimensions of the composition and the nature of the materials to be used, granite and bronze, will contrast with its surroundings and avoid any comparison as to size. Altogether it will be an arresting memorial, an added beauty to Lockerbie, and a worthy tribute to the memory of its fallen."

MR. JOHN W. SIMPSON, P.R.I.B.A., who was appointed assessor in the competition promoted by the Worshipful Company of Brewers for a Type-design for a Licensed House in Large Town, has presented his report to the Council of the Royal Institute of British Architects. The assessor has awarded the premiums as follows:—Design placed first.—Premium of £300 awarded to the authors of design No. 14, Messrs. Curtis & Natusch, A.A.R.I.B.A., and White & George A.A.R.I.B.A., 34 Bedford Square, W.C. 1, Associated Architects. Design placed second.—Premium of £15 awarded to the author of design No. 42: Mr. C. H. James, A.R.I.B.A., 19 Russell Square, W.C. 1. Design placed third.—Premium of £50 awarded to the authors of design No. 72: Messrs. Blount & Williamson, A.R.I.B.A., 5 Duke Street, Adelphi, W.C. 2. Special mention.—Design No. 1, Messrs. L. G. Hannaford, A.R.I.B.A., and H. G. Cherry, Licentiate R.I.B.A. All the designs submitted will be on exhibition in the R.I.B.A. Galleries till Thursday, March 24, inclusive, between the hours of 10 A.M. and 8 P.M. (Saturday 6 P.M.).





# EDPATH BROWN & CO. LTD.

## CONSTRUCTIONAL ENGINEERS

### WORKS AND STOCKYARDS

LONDON  
Verside Works,  
East Greenwich S.E.

MANCHESTER  
Trafford Park.

BIRMINGHAM  
Office: 47, Temple Row.

EDINBURGH  
St. Andrew Steel Works.

NEWCASTLE-ON-TYNE  
Milburn House.

GLASGOW  
Pinkston.  
Office 19, Waterloo St.

London City Office:- 3, LAURENCE POUNTNEY HILL E.C.4



## Birmingham Architectural Association.

THE last general meeting of the session of the Birmingham Architectural Association was held at the Society of Artists' Rooms, Birmingham, on March 11. The President, Mr. H. T. Buckland, F.R.I.B.A., took the chair, and Captain G. Salway Nicol, F.R.I.B.A., read a paper entitled "The B.A.A. Excursion to Bourges."

The lecturer said that people often wonder why architects travel long distances and spend their leisure in studying such old buildings as the Gothic Cathedrals, which seem to have no relation to the problems submitted to them by this material age. Stimulated by the enthusiasm of students, they sometimes visit an old city, and fascinated by the glamour of age and the theories of archaeologists, they have some return for their trouble, but they return with the idea that making sketches of these old places is but an innocent hobby.

This view is too superficial. They have not realised what a Gothic Cathedral means. A great building such as St. Etienne at Bourges is probably one of the finest flowers of human civilisation. The lessons which can be learnt from such buildings will bear fruit when the materialism of the present day can be shaken off, and it is our duty, in the meantime, to keep alive that appreciation and respect for the great achievements of the past.

The architects who journeyed to Bourges from Birmingham in the early summer of last year, combined the delights of living in a fairly modern town with sketching the many examples it contains of building of various ages. The cathedral, which naturally formed the chief attraction of the pilgrimage, has an interior of five lofty compartments, arcaded and vaulted in stone, with that skill and grace for which the masons of the thirteenth and fourteenth centuries are so famous. The West Front, in the evening sunlight, with its great stretch of steps, bearing its range of five open-armed portals and surmounted by two lofty towers guarding and supporting the great rose window, is a sight which cannot fail to impress the beholder.

No finer opportunity for the display of stained glass can be found than the three continuous clerestories of Bourges, which stretch from west to east, without any interruption, for the plan is based on the simple lines of a Roman Basilica. The whole of the windows are unfortunately not glazed with the original glass, but a considerable proportion remains, and enables it to vie with Chartres in this glorious possession.

Such a pilgrimage as this is always too short, but one returns with delightful memories, and with a number of sketches which will never let one forget the circumstances under which they were made.

Mr. Nicol illustrated his lecture with many water-colour drawings, sketches, and photographs made during the visit, and also with a number of lantern slides.

At the conclusion of the lecture, a vote of thanks was proposed by Mr. Arthur Harrison, and seconded by Mr. J. Coulson Nicol, who himself showed a few lantern slides which he had obtained at Carcassonne and Albi during the visit.

BETHNAL GREEN Council has prepared a £200,000 scheme for the provision of flats and maisonnettes.

MR. TOM NEWTON WELLS, of Green Cross Gardens, Hampstead, N.W., builder, who died on January 5, left £53,387 gross and £53,050 net.

At the monthly meeting of the Brandon and Byshottles Urban District Council it was reported that the Ministry of Health had given sanction for the Council to borrow £27,200 for the Waterhouses housing scheme and £132,480 for the Meadowfield scheme.

The magistrates at the Bristol Licensing Sessions last week granted the application of Mr. J. P. Emmett, 18 Nicholas Street, Bristol, for a licence to erect a picture-house in White Ladies Road, at an estimated cost of £50,000. At the same meeting licence was granted to Mr. A. E. House, of Colham, to erect a cinema hall at High Street, Westbury-on-Trym, at a cost of £7,000.

## Housing News.

THE Eastbourne Town Council are about to erect another 150 houses for the working classes at an approximate cost of £150,000.

THE Dundee Building Guild are to be given an opportunity to tender for any houses the Town Council decide to erect under future housing schemes.

Six houses are to be erected at once for the Kingsbr Urban Council, at Wallingford, by Mr. J. C. Scoble tractor, at £820 per house.

At a meeting of the Eton Rural District Council Slough the housing director produced a letter he had received from a German firm offering about 20,000 doors windows. No order was given.

THE Llangollen District Council have accepted lowest tender for houses at Garth, at £1,802 2s. 10d. pair. It was also decided to acquire the necessary land less than £50 an acre. In regard to the housing scheme progress at Vron, the Clerk said they had applied for sanction to borrow £20,000 for the houses, but the amendment would cost £23,000. He could not get a reply from the Ministry as to the additional sum.

THE Halifax Medical Officer of Health (Dr. Neech) a revised estimate of the housing needs of the borough, the number of houses to be provided by the Corporation 1,150. The Ministry of Health have suggested modification of the houses proposed to be erected at Boothtown and He Lane, the estimated cost per house being £1,036 for the parlour type, and £1,235 for the parlour type. The Housing Committee have replied that it is not possible to reduce cost of a stone-faced house more than £50.

THE Housing Committee of Glasgow Corporation have agreed to recommend the acquisition of Caldwell Brickworks, near Lugton, Ayrshire. This is a two-unit works producing boulder clay bricks, and the purchase price £40,000. The Corporation Housing Committee recently acquired brickworks at Dalry, Ayrshire, at a cost of £45,000, and it is understood that negotiations are proceeding with a view to purchasing brickworks in Sanquhar Dumfriesshire.

THE Carlisle Corporation last week approved acceptance of tenders for the erection of 125 houses on Long Sowerby site, which is being laid out for 250. The 125 houses will cost £940 each, or about £100 less than the already erected or in course of erection. A proposal to erect houses by direct labour was defeated, it being stated that the Ministry of Health had laid it down that it was advisable to have them built by private contractors if tenders were reasonable.

It was reported at the last meeting of the Bedwas Machen Council that the Housing Commissioner would sanction tenders for houses at the present prices and the cost must be somewhere near £700 per house. It was meant that certain housing projects in the district could not proceed. The clerk said in face of this the Council could only await events. A tender for the construction of roads and sewers at the Glebe site, Bedwas, from Mr. T. Howells, Caerphilly, of £9,600 was accepted.

At last week's meeting of the Wombwell Council Clerk reported the receipt of a communication from the Housing Commissioner intimating that the tenders for erection of a further 386 houses on the King's Road site had been turned down. The letter further stated that the cost of building had gone down considerably since last autumn. The Clerk pointed out that the Housing Commissioner had no suggestion as to future policy. The sooner the matter was swept off the deck so far as the Housing Commissioner was concerned the better. There was no business in it at all. The Council decided to protest strongly against the delay, and also to put forward a resolution disagreeing with the policy of restricting the Building Guild to two contracts.

## Trade Note.

MESSRS. E. REEVE & Co., 23 Elthiron Road, Park Green, S.W. 6, have put on the market, under the name "Killrust," a new patent rust-proof priming paint and metal preservative. The firm guarantee that this paint will cover 20 per cent. more surface than any other, and preserve every description of metal from deterioration. A Teacher of Painting at the London Polytechnic has declared his opinion that "Killrust" is the most elastic and durable sealer that has been discovered.



## CONTENTS.

The Brewers Company's Competition . . . . .	PAGE 203	Contemporary British Architecture and its Immediate	
East Ham Hospital Competition . . . . .	204	Ancestry.—I. . . . .	PAGE 207
Competition News . . . . .	204	The Threatened City Churches . . . . .	210
Forthcoming Events . . . . .	204	The Architectural Association . . . . .	211
Illustrations . . . . .	205	Correspondence . . . . .	211
Notes and Comments . . . . .	205	Rural Signposts.—II. (Illustrated) . . . . .	213
London Art Galleries . . . . .	206	Impermeability in Concrete . . . . .	216
Art News of To-day . . . . .	206	South Wales Institute of Architects . . . . .	218

## The Brewers Company's Competition.

(See Inset Illustrations.)

THE Brewers Company have followed the precedent set by Messrs. Allsopp by instituting a competition for a new type of licensed house to meet the requirements of changed regulations, and to enlist public sympathy by an endeavour to inaugurate improved conditions in a type of building which has for centuries been closely connected with the life of this and most European countries.

Their motives will be differently interpreted according to the standpoint adopted. Temperance fanatics will regard it as an astute move meant to buttress up a national evil, but the great majority of the public will welcome it as showing a sincere wish on the part of the licensed trade to meet reasonable objections and to keep in touch with changed conditions. The standards adopted in the competition as expressed in the conditions laid down were entirely different, for while Messrs. Allsopp's competition was for such a building as might be wanted in any small provincial town, it was specifically stated that the competition just adjudicated on by the President of the Institute was for a larger type of building, such as might suitably be built in a populous district of North London. It partook more of the character of a restaurant with a room of the ordinary licensed character attached than what is known as the "public house," and a further distinction was given by the inclusion of a large room suitable for dining one hundred people, and we suppose also available for many other purposes involving the assembling of large numbers of people.

The site laid down was supposed to be at the junction of two streets, and the chief entrance to the Refreshment Room from the angle of these streets.

The Manager's Office was to be so placed as to command the Bars of both the Refreshment Room and Club Room, the latter being so arranged that it could be closed during prohibited hours.

We consider two of the conditions laid down as being faulty, the first being that competitors were told that the entrance to the Refreshment Room should be from the angle of the two streets, and most competitors very naturally assumed that this meant that the angle was to be canted or rounded, whereas the assessor in his award has placed a design third in which this condition is broken, and has mentioned another in which the entrance is near the angle, but that angle is kept square. The condition seems to us to have caused ambiguity and given unnecessary work, for it is most difficult to effectively treat and plan such an angle, and as the award shows that the assessor did not think it was essential it is a pity it was ever mentioned. The other point is that it was stated that only one staircase was required for all purposes, whereas it is evident that public authorities would insist on the staircase to the Assembly Room being reserved for that purpose only, the staff possessing adequate and independent staircases. It also seems to us a pity that competitors were asked to do work in making details of the

public rooms and sign, which entailed much work, but which would neither justify the selection of a bad plan or put a good one out of court. The real problem was to find a plan and clothe it with suitable architectural expression, and everything else was extraneous and unnecessary. But those who studied the problem were confronted with another difficulty in that the conditions asked that the Refreshment Room should be lighted by windows which opened down to the ground and could be thrown open in fine weather, while, at the same time, the pavement was not to be infringed upon. Evidently the organisers of the competition had the Continental restaurant in their minds. In the first place, the conditions are entirely different. Abroad a greater amount of fine weather can be depended on and the national habits are different. Moreover, it is usual to provide a portion of the pavement for private use, on which tables are set, divided from the street by plants in pots or glass screens. Without this the whole arrangement seems useless, and unnecessarily hampers designers, in addition we do not know of any position in North London where the users of a restaurant would derive much pleasure from sitting near open windows on the edge of the thoroughfare.

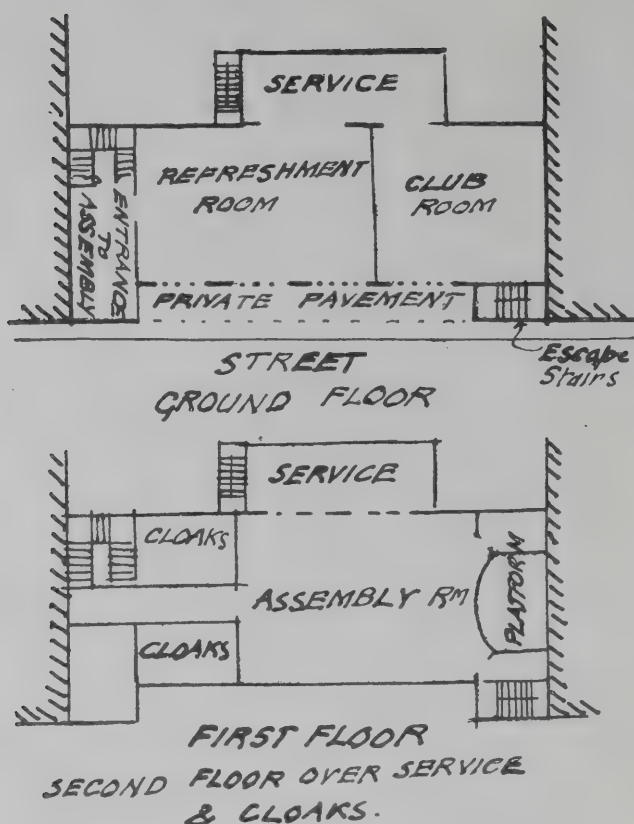
Again, the T-shaped building, which was necessitated by the two frontages, involved the waste of unnecessary space for service, because, while the Refreshment Room faced Street A, the Club Room faced Street B, and was separated from the Refreshment Room by the main entrance to the building. Not one of the competitors satisfactorily solved this difficulty, which in our view was insoluble.

The framers of the conditions appear to us to have sought a compromise between two diametrically opposite types of building, the Continental Restaurant and the old-fashioned English hostelry, and an examination of the designs submitted prove to us that no *via media* is possible. Possibly this was the object of the competition, and, if so, it has been completely satisfactory. We illustrate our meaning by a little diagram, which will show clearly what we mean.

In the plan on next page we have assumed that the promoters wish to adopt the Continental model. If so they would have been wise to suggest a site having one and not two frontages. By doing this and setting the main frontage back from the street, with a projection at either end, the problem at once becomes simplified. Service is made easy without waste of space, a dignified architectural treatment is suggested by the lines of the plan, while it would be easy to arrange flaps in the private forecourt for service to the cellars, since this could take place in early hours, when buffet conditions were easy. Access to the staff quarters would be obtained through the public rooms, but we see no objection to this, as both the Refreshment and Club Rooms are shops where food and drink are sold.

The alternative to this seems to be an improved hotel or public-house plan, in which the type and





treatment would be based on that of the old English chop-houses, and on these lines a very effective and reasonable design could have been made.

Of the designs submitted, we illustrate the three premiated ones, which undoubtedly are among the best of those submitted. The winners—who we are glad to think will have the opportunity of working out a scheme to be carried out in bricks and mortar—have produced a scheme which fairly complies with very difficult conditions, and can produce something much better when they are in direct touch with their clients. The second design is one of the best submitted in architectural treatment, and the authors of the design placed third have planned their service arrangements very compactly and well. The design, which has received hon. mention, is praiseworthy in its simplicity.

But, taken as a whole, the competition is a disappointing one, and it would be difficult to find more than eight designs which are really interesting, either in plan or elevation.

Either our best designers have not been attracted by the subject, or the difficulties which we have pointed out have militated against achievement.

Competitors were told that the district was one containing many eighteenth-century buildings, and, although they were not tied, it was clearly suggested that designs might reasonably partake of a traditional Georgian character.

But, though we expected to see this suggestion acted on, there are few designs which have any marked character among the large number submitted. Is it that we are becoming eclectic and have outgrown the wish to give our buildings traditional character? There are designs which might be parts of schools or public buildings, others which suggest a half-hearted reminiscence of a bank or insurance office, but hardly any which call to our mind the English hostelry, or have dignity or decision of note.

The author of No. 33 is among the few competitors who seems to appreciate character in design. He has given a Georgian design, which it would be a delight to see in execution, but, unfortunately, his

plan is weak. No. 52 submits good elevations, but his plans are wasteful. No. 11 sends a creditable scheme, and No. 6 a plan with a well-arranged bar and service department.

There are undoubtedly many designs with some good points, and the competition will have done good in enabling the promoters to clarify their ideas, but more than this we do not think can be said.

### East Ham Hospital Competition.

COMPETITORS for the East Ham Hospital Competition have had an opportunity of displaying considerable originality in their method of dealing with a site already occupied by a somewhat inconveniently planned house. It was left to their discretion to decide whether this house was to be scrapped or adapted for the use of the hospital staff.

Messrs. Mennie & Smith, the architects of the winning design (to be illustrated next week), have demolished the house altogether, and by reducing the cubic space of the building as much as possible and pricing the cost at 2s. 6d. per foot cube, have kept within the limit of £40,000—a sum barely adequate for the requirements of a hospital of such dimensions.

The position of all the wards ensures a South and West aspect, and a glance at the plan shows how simple and direct is the communication between the Administration block, kitchens and wards.

Modern hospital planning demands, above all things, through ventilation and cut-off lobbies, dividing the lavatories from any main portion of the building. These points have been adequately complied with by the architects, and their choice of position for out-patients' block, operating theatre, mortuary, &c., is undoubtedly convenient for all concerned.

If any adverse criticism can be made, it seems to us that the kitchen block and nurses' dining-room are rather on the small side, while the passages to the wards from the main corridor are inclined to be somewhat dark.

Messrs. Mennie & Smith may be heartily congratulated on their successful planning and restrained elevations.

### Competition News.

THE R.I.B.A. Competitions Committee desire to call the attention of Members and Licentiatees to the fact that the conditions of the Queensbury War Memorial Competition are unsatisfactory. The Committee are in negotiation with the promoters in the hope of securing an amendment. In the meantime Members and Licentiatees are advised to take no part in the competition.

THE Society of Architects have issued a warning to their Members similar to the above with regard to this Queensbury Competition.

THE London County and Westminster and Parr's Bank Ltd., has chosen the plans for a new head office on its site in Lothbury, which runs from Tokenhouse Yard to Angel Court. Four architects were invited to send in designs, and the successful competitor is Mr. A. J. Davis, F.R.I.B.A., of Messrs. Mewes & Davis. The complete designs provide for a nine-floor building, including two basements. The present building was designed by Cockerell & Tite in 1842.

### Forthcoming Events.

Thursday, March 31.—Concrete Institute.—Meeting at 296 Vauxhall Bridge Road, S.W. 1. Paper by Mr. S. Bylander, M.J.I.E., entitled "Stresses in Structural Steel." 7.30 P.M.

Monday, April 4.—Royal Institute of British Architects.—Meeting at 9 Conduit Street, W. Paper by Sir Lawrence Weaver, K.B.E., F.S.A., entitled "The Land Settlement Building Work of the Ministry of Agriculture and Fisheries." 8.30 P.M.

Tuesday, April 5.—Liverpool Architectural Society.—Meeting at 13 Harrington Street. Annual General Meeting and President's Closing Address. 6 P.M.

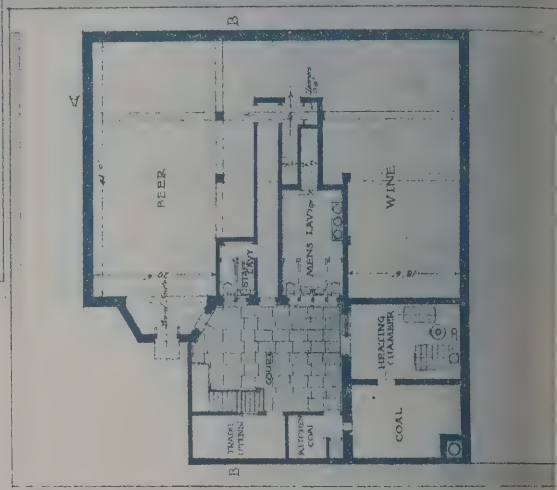
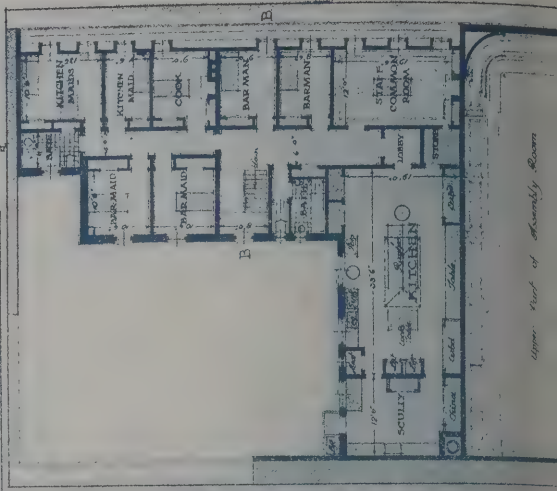
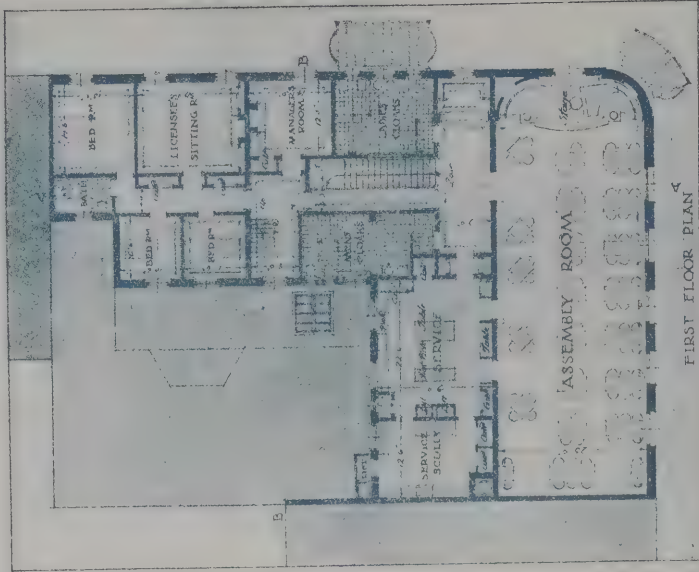
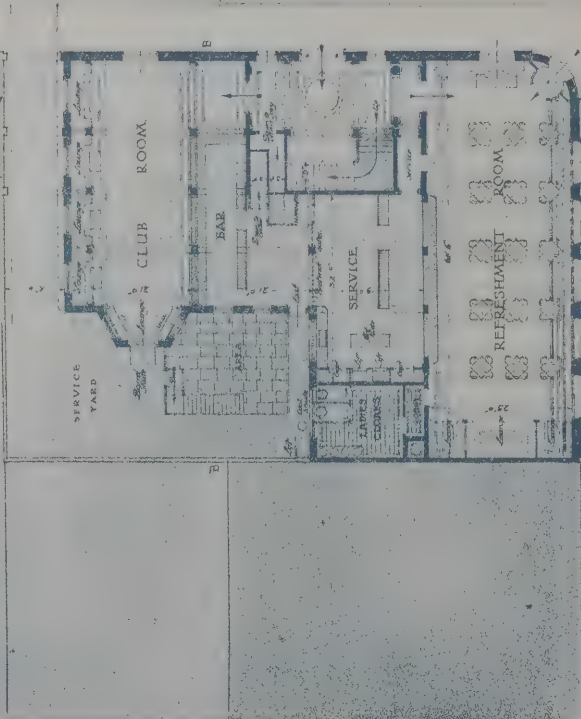
Friday, April 8.—London Society.—Meeting at 18 John Street, Adelphi, W.C. Paper by Miss Norah March, B.Sc. (Editor of "National Health"), entitled "London Development in Relation to Health." 4.30 P.M.



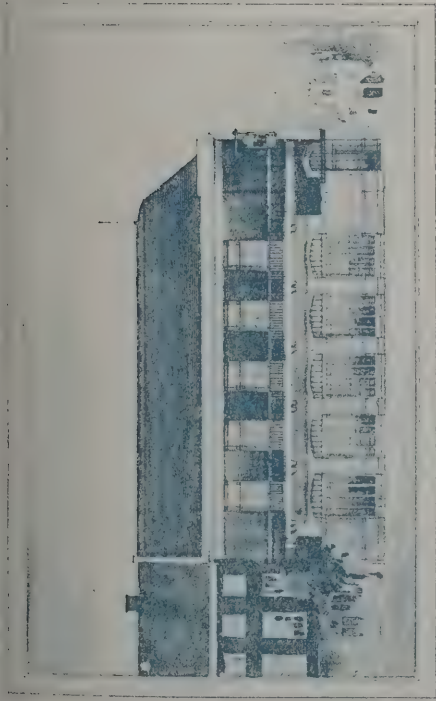


TYPE DESIGN FOR A LICENSED HOUSE

PLAN



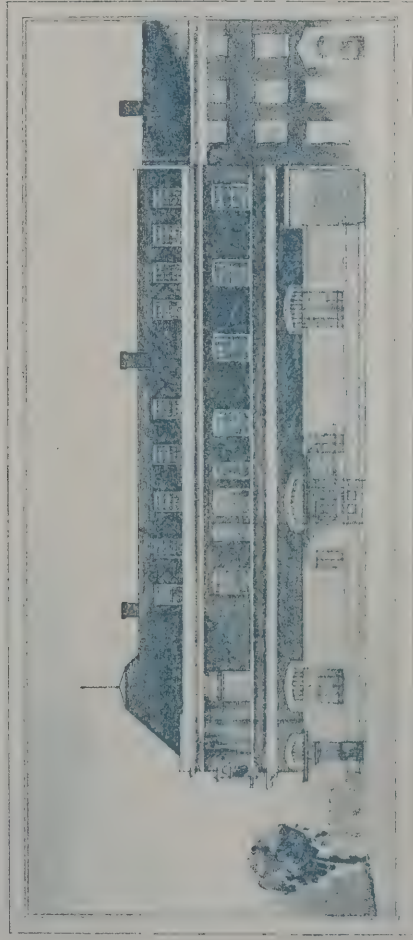




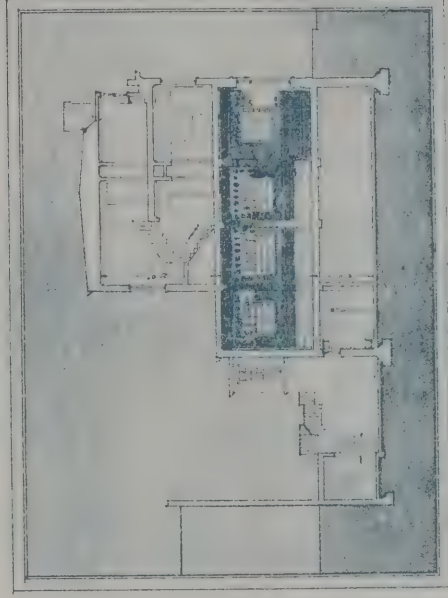
ELEVATION TO MAIN STREET



SECTION 'A.A.'



ELEVATION TO SIDE STREET.



SECTION 'B.B.'

TYPE DESIGN FOR A LICENSED HOUSE FOR THE WORSHIPFUL COMPANY OF BREWERS: DESIGN PLACED FIRST.  
CURTIS & NATUSCH, AND WHITE & GEORGE, A.A.R.I.B.A., ARCHITECTS.







*Type Design for*  
A LICENSED HOUSE IN A LARGE TOWN



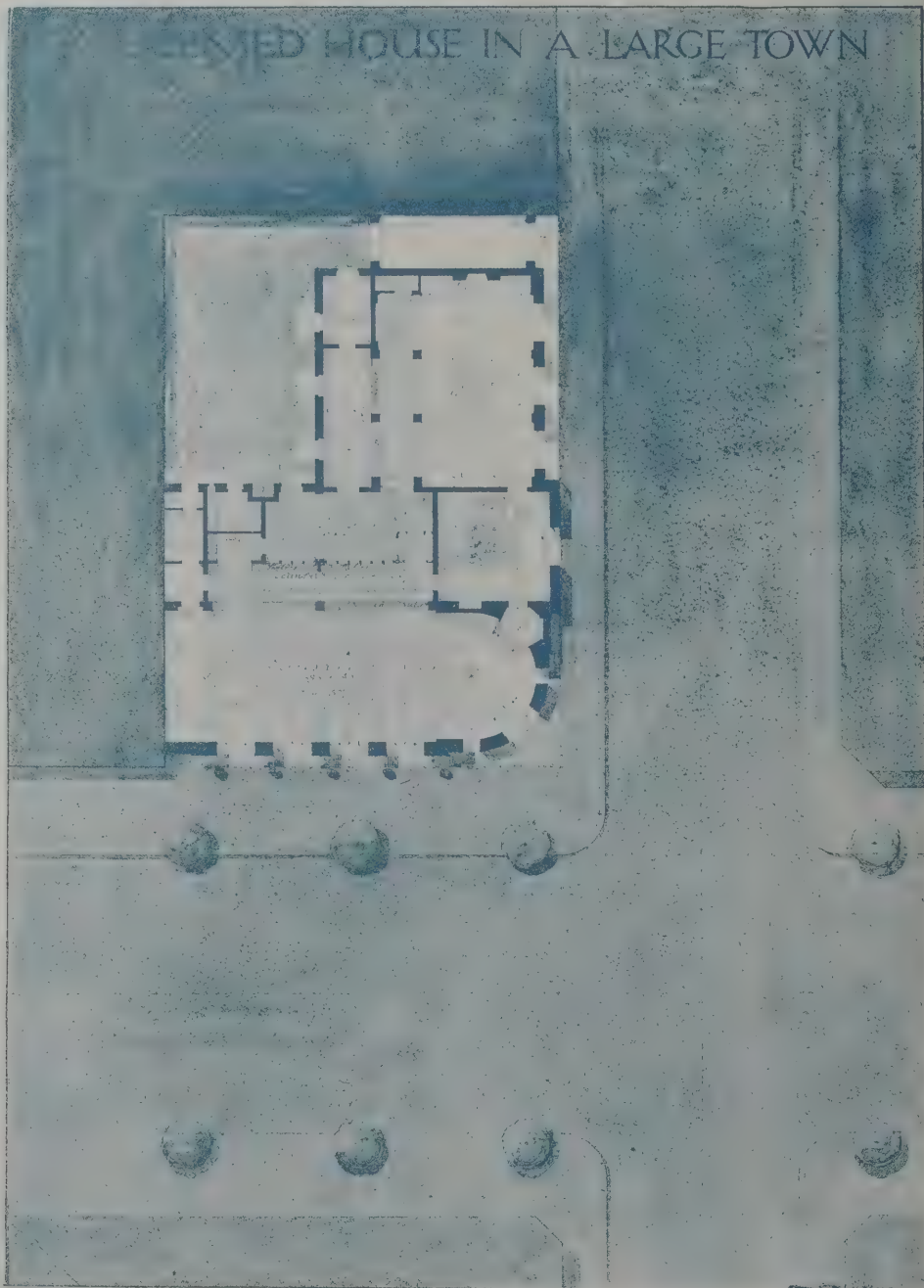
FIRST FLOOR PLAN



SECOND FLOOR PLAN

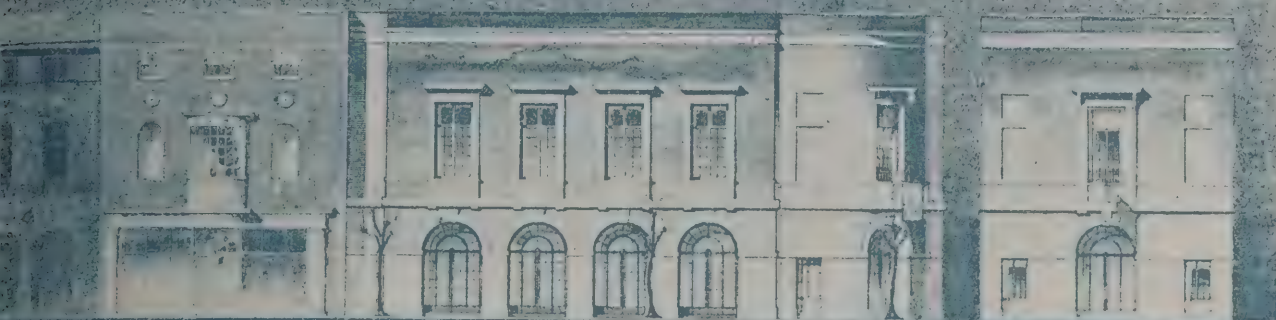


THIRD FLOOR PLAN





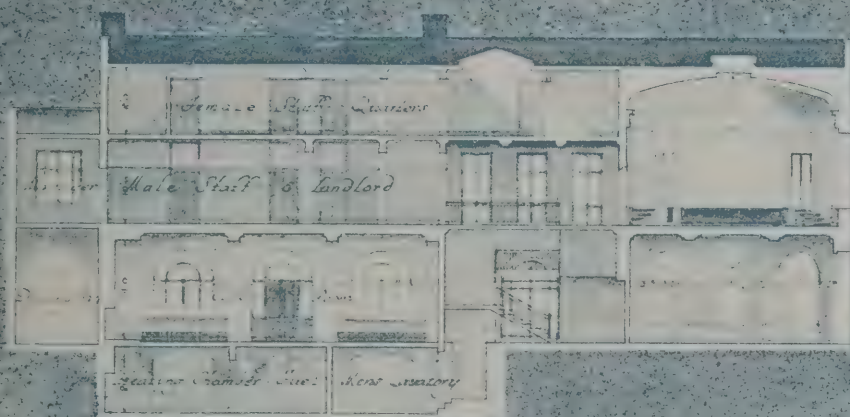
# A LICENSED HOUSE IN A LARGE TOWN



ELEVATION TO MAIN STREET



ELEVATION TO SIDE STREET



SECTION AA



SECTION BB

SCREENLESS PHOTO PROCESS, SPRAGUE HAYCOCK (PRINTERS) LTD. 69 & 70, DEAN STREET, LONDON, W.1.

SIGN FOR A LICENSED HOUSE FOR THE WORSHIPFUL COMPANY OF BREWERS: DESIGN PLACED SECOND.

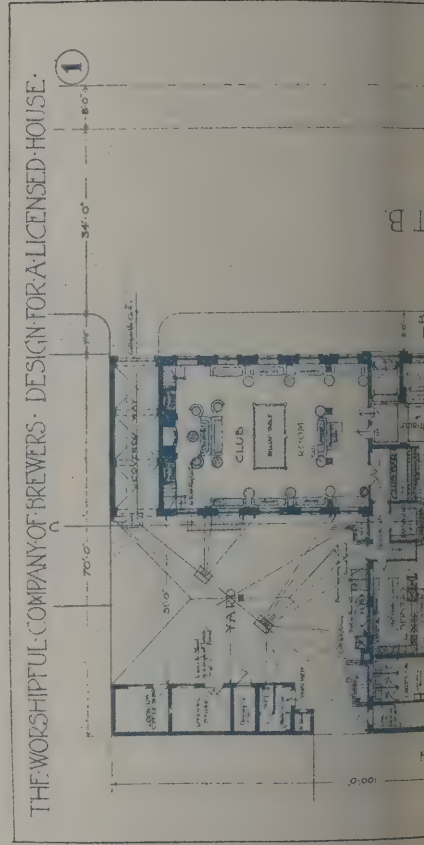
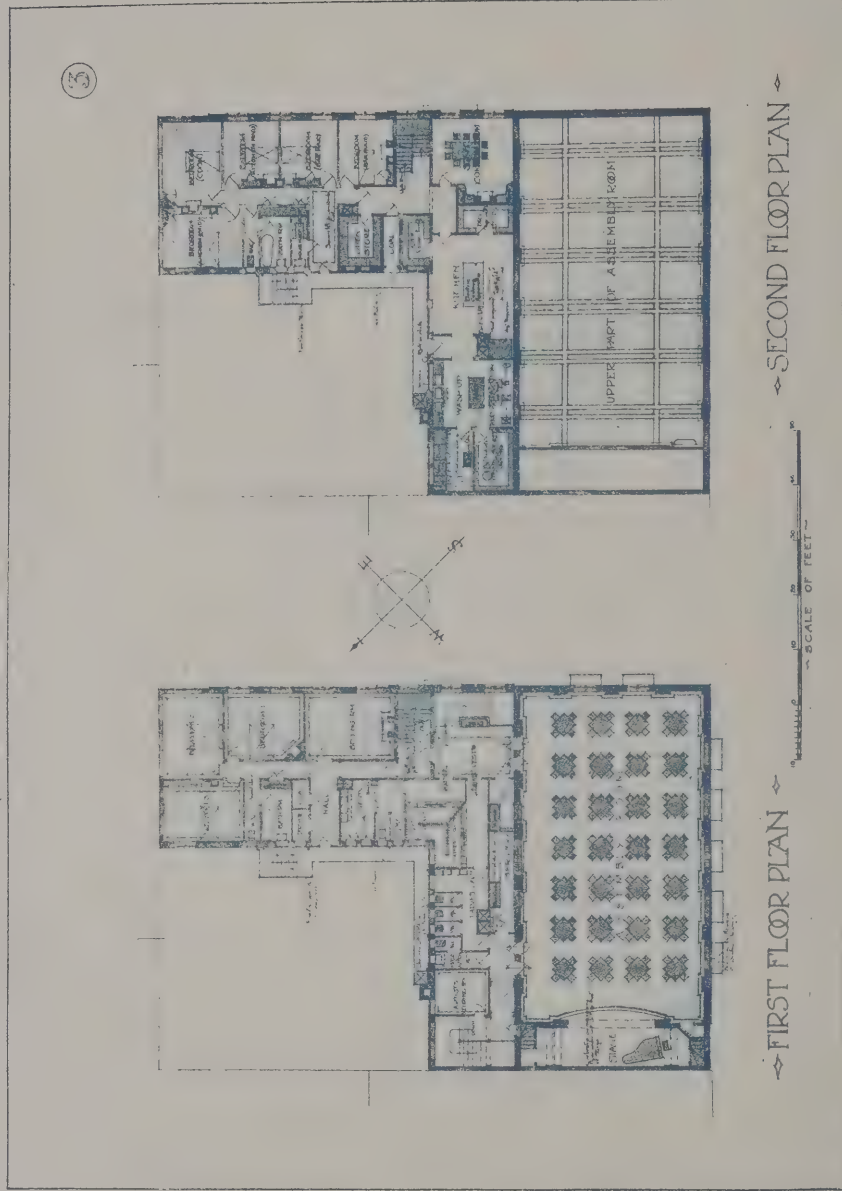
DESIGNED BY C. H. JAMES, A.R.I.B.A., ARCHITECT.  
(OF HENNELL & JAMES.)



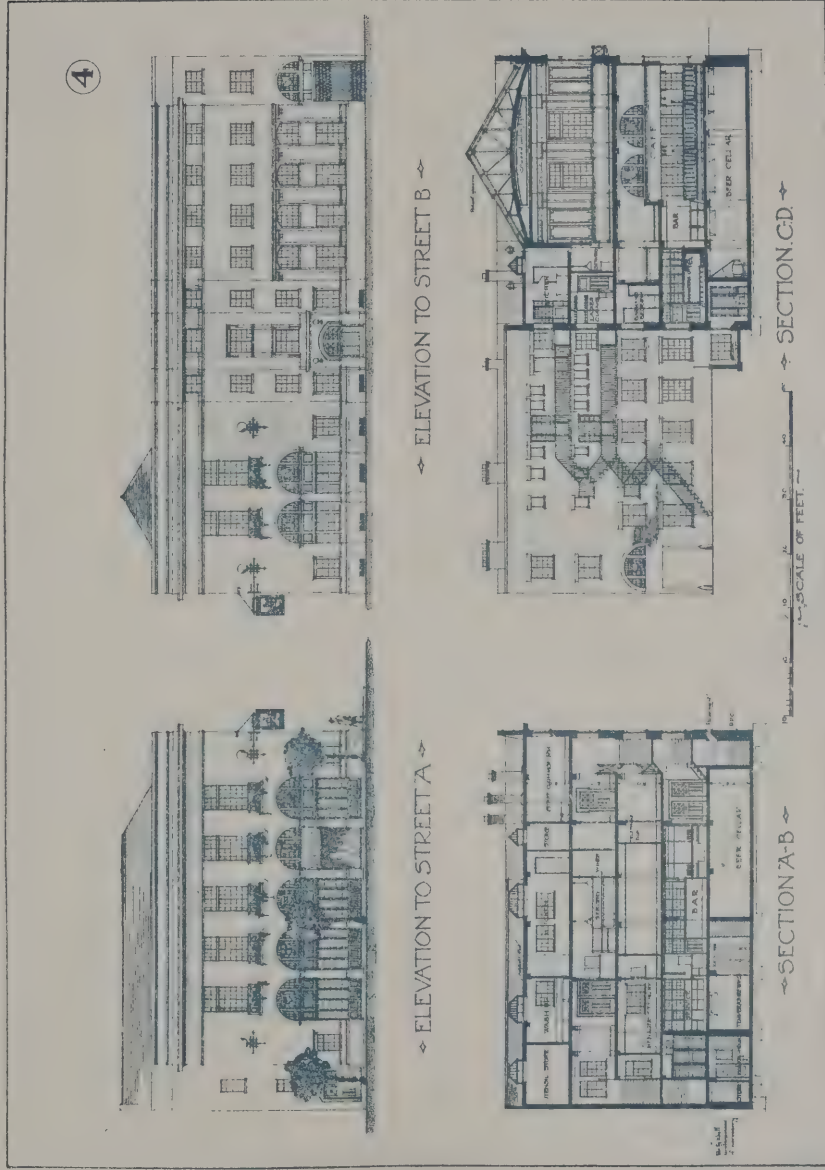
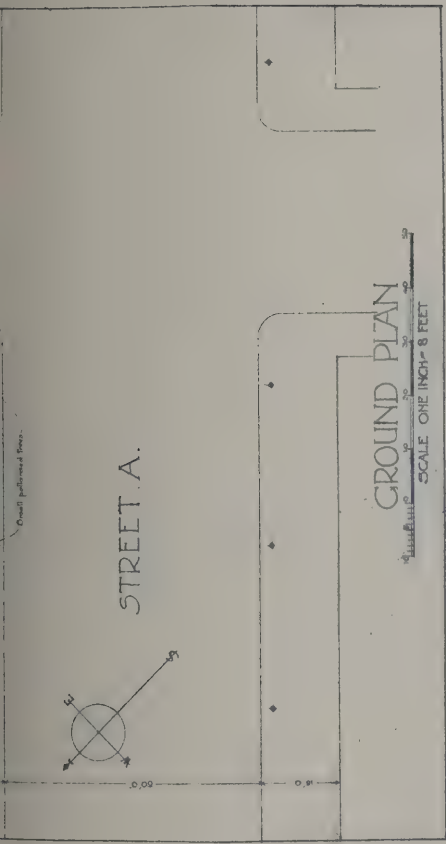




THE ARCHITECT, MARCH 25th, 1921.







CONTEMPORARY PHOTO PROCESS, SPRAGUE HAYCOCK (PRINTERS) LTD 69 & 70, DEAN STREET, LONDON, W.1





## Illustrations.

TYPE DESIGN FOR A LICENSED HOUSE FOR THE WORSHIPFUL COMPANY OF BREWERS:

DESIGN PLACED FIRST. CURTIS & NATUSCH, AND WHITE & GEORGE, A.A.R.I.B.A., Architects.

DESIGN PLACED SECOND. C. H. JAMES, A.R.I.B.A., Architect (of HENNELL & JAMES).

DESIGN PLACED THIRD. BLOUNT & WILLIAMSON, A.R.I.B.A., Architects.

## Notes and Comments.

### The City Churches.

We give elsewhere an interesting letter from Sir Aston Webb on the subject of the proposed demolition of City churches, together with the Bishop of London's answer. We think that whatever may or may not be decided the public should know whether the churches belong to the Church or to the public or any authority representing the public. If the ownership of the buildings is not vested in the Church of England the question is disposed of, and the findings of the Commission recently held may be regarded as only being important as showing the extent to which the ecclesiastical authorities consider they can make most suitable use of specific buildings. If, on the other hand, the ownership of the buildings is vested in the Church of England, it surely has the same rights to deal with property as is possessed by any other private owner. It may or may not be expedient for the Church to consider possible prejudice, but that is its affair alone. We have sympathy with the points which Sir Aston Webb makes so strongly, but we are not in full agreement with him in the matter. We may, no doubt, argue that those who live in newly developing neighbourhoods should provide for their own wants, but we know in many cases they are unable or unwilling to do so without help. Should the Church endeavour to meet the difficulty or not? This, again, seems to be a question for the Church. But there can be little doubt that the incomes of many of the clergy are scandalously insufficient, and though we may argue this deficiency should be met by parishioners, we know in many cases it will not be, and clearly if this be so a moral responsibility rests on the Church to meet the wants of its ordained clergy. If this be so some sacrifice must be made, and from the standpoint of the Church it may be a question of men as against buildings.

### "Art in Common Life."

An interesting series of articles is being published in "The Times" on "Art in Common Life," with which we propose to deal next week. It is interesting and encouraging to find that our leading papers, which some years ago would have considered such a subject as being outside their purview, should now devote so much space to it, and we hope that good may arise out of it. We have heard in the world of architecture lately much about municipal design and town-planning, but there is one simpler and smaller manner in which greater harmony in our cities might be produced. We believe the architectural student should be given two dissimilar frontages separated by a gap, and should be asked to design a building on lines best suited to bring them into harmony with the other. We should, in other words, inculcate a less selfish and assertive point of view in designing street frontages, the designer's object being not to show what he can do independently, but what it is best to do when we consider a street frontage as a whole. Much of our work is and must be, of the nature of patchwork, and it is important to learn to do it with good manners, which involves consideration for one's neighbours and for the community as a whole. This and the regulation of displayed advertisements, shop signs, and lettering, is to our mind one of the most important subjects which affect Art in Common Life."

### Central Heating.

Mr. KENNETH GRAY, a past-President of the Institute of Heating and Ventilating Engineers, has written to the "Observer" to remove some aspersions which have been cast at central heating systems in that paper. Frequent reference has been made from time to time to the dry and unpleasant results of central heating in American houses which we are told should be a lesson teaching us to avoid artificial systems of heating. But, as Mr. Gray says,

the climatic conditions are entirely different and affect the nature of the problem. In America the winter temperature is frequently at zero or below, in which case air contains practically no humidity; the effect is that the heated air seeks such moisture as is present in the skins of people living in heated rooms, with the deleterious effects we frequently hear of in reference to the complexion. Here the air even in winter is normally charged with abundant moisture so that similar conditions and results do not obtain. We also agree with Mr. Gray in thinking that far more harm is caused by under heating than by over heating, while it is always possible to mitigate the latter by opening windows. But England is always a country where the man who resists the introduction of improvements will always find support. It is not that we possess greater veneration for old customs than others, but we have a constitutional inertia which makes us resist proposed changes.

### "Chateaux en Afrique."

THE "Gold Coast Pioneer" contains the first of a most interesting series of articles on the Castles of the Gold Coast. Not only our commerce, but that of other countries was in past centuries undertaken by companies which obtained the Royal Assent and wide privileges for trading in different foreign lands. The "Royal Adventurers of England trading to Africa" was formed in 1662 and was succeeded in 1672 by the Royal African Company of England, and in 1752 by "the African Company of Merchants." Brandenburg, Sweden, France, Portugal, and Holland also formed similar associations, chiefly with the object of securing an ample supply of slaves for the cultivation of plantations. Naturally these traders needed protection and to afford it some thirty-five forts were built at points along the Gold Coast, most of them being now in ruins. Unlike the ruder stockades in American Colonies these were for the most part substantial stone buildings having moats, bastions, ramparts, towers, and drawbridges, and containing panelled rooms for the Governor and his suite.

### Tradition.

WE quite agree with the points urged in Mr. Horace Field's letter to us that the best manner to raise the quality of architectural design is by an insistence on the importance of tradition. We have in our midst many clever designers who are feverishly anxious like the Athenians for "some new thing," and who in trying to produce it usually arrive at results which are both bizarre and uninteresting. We would almost go so far as to say that anyone who knew any of our great architectural styles, Gothic or Renaissance, really well from actual examination of buildings, sketching and measuring, would produce good architectural work of that type, whereas the abler man who was not so well grounded could not design. For a knowledge of tradition is like language which is not eloquence, but is a necessary precedent to eloquence. If we have to think of our words we cannot express what is most essential—our meaning. So if we are constantly thinking of forms we stumble in design, whereas a good knowledge of tradition frees us. We have not to think of the form with which we shall clothe our design, but simply of its purpose; the rest becomes, like speech in a language familiar to us, entirely automatic. As for originality it may be safely said that the men whose work strikes us as being original in the best sense and widest acceptance are usually those who would be surprised to hear themselves so described. Originality is in other words not an independent growth, but the outcome of minds which have unconsciously assimilated knowledge which is veiled from lesser men sometimes by their very eagerness to secure and achieve it.



## London Art Galleries.

(All Rights Reserved.)

IMPORTANT events in the London art world last week were the opening of the 112th exhibition of the Royal Institute of Painters in Water Colours on Saturday, March 19; the opening on the same day of the Royal Society of Painters in Water Colours' Summer Exhibition in their galleries in Pall Mall East; the opening on Thursday, March 17, of an exhibition of Modern Paintings, including work by Augustus John, William Rothenstein, James Pryde, and Max Gertler, at the Alpine Club Gallery; and, lastly, the very important sale at Messrs. Christie's of Primitive Pictures and Early English Portraits on Friday, March 18.

I am giving this last a special notice this week, on account of the very high artistic, as well as commercial, value of some of the works put up for sale, and shown to the public on the two days preceding this sale. As I have mentioned already there were some very interesting Spanish Primitives to be sold, notably the seven panels of the Valencian School, the property of Mr. C. B. Andrews, who exhibited one of these, the "San Vicente," in the recent Spanish exhibition, the two other panels of this set being in the New York Metropolitan. Dignified and sincere as are these Spanish works they cannot compare with the charm of the Italian Primitives. "Movement," I wrote once of Sandro Botticelli, "is always one of his most distinctive features." He has a temperamental vehemence, which finds expression in his "Nativity," of our own Gallery, and again here in the lovely "Nativity" from Mr. Austen's collection, where the Virgin, in rose-coloured mantle and dark green cloak, a typical Botticelli creation, kneels in an ecstasy of adoration before her Babe, while in the distance is Bethlehem, and the three Kings wind down the hillside with their train.

Quite as important, though perhaps less attractive, is the "Madonna and Child," put down to the "Amico di Sandro,"—that master evolved by Mr. Berenson to cover the many pictures which have Botticelli elements (as here very strongly in the angel and Infant Jesus), but cannot be traced to the Master; and yet again the interesting Filippo Lippi ("Virgin and Child with Saints") the profile portrait of a youth by Leonardo's contemporary, Ambrogio da Predis, and the two large panels ("Marriage of Hippodamia," and the resultant "Combat with the Centaurs") put down to Bartolommeo di Giovanni (Alunno di Domenico). Of course from the sale point of view interest will centre in the grand English portraits by Romney, Raeburn, and Reynolds; and I hope to add some note of prices before these Notes go to press. Romney has here the fine portrait of "Lady Napier," and the "Clavering Children," two masterpieces of his brush; while I have seldom seen a more fascinating Sir Joshua than his "Mrs. Nisbett," as the goddess "Circe," in white muslin dress, beneath the trees, with a panther and cat at her side.

I promised last week some fuller notice of the remarkably fine display of water-colour drawings of the English School in the Victoria and Albert Museum. These include in the first room work by Brabazon, Sir Alfred East, Wilson Steer, Hely Smith, Albert Moore, Rossetti, and among the moderns again Cecil Hunt, Russell Flint, Gerald Moira, Wynne Apperley, and Rich. In the inner room we are among the earlier Masters—Paul Sandby, Cozens, Francis Towne, and Thomas Girtin. There are some magnificent Turner drawings here, more than twenty in all, and an almost equally fine set of Peter De Wint. This necessarily brief survey, which I may return to later, will show the lover of water colour what a feast is provided for him here.

The exhibition opened on Saturday last, March 19, of the Royal Institute of Painters in Water Colours is combined, as before, with that of the Society of Miniaturists. The water colours filling the three rooms of the Institute form this year a very attractive display. Of first importance in the South Gallery is the fine contribution of the

President, Sir David Murray, R.A., P.R.I., who sends this year a study of "The Hills of Lewis from Uig," boldly treated, which has almost the richness and quality of oil painting. The same might be said of Graham Petrie's brilliant paintings of Italy and the French Riviera, of which "Isola Madre" and "L'Isola dei Pescatori" are good examples. One of the successes, to my judgment, of this exhibition, notably in figure painting, is gained from the clean, bold handling of the washer, W. E. Webster's "Diana" challenges attention on the end wall. This young girl is a Diana of the eighteenth century in costume, her bow the only direct connection with the silvery huntress: the figure, painted three-quarter length, is admirable in freedom of pose and drawing. Near this Fred Taylor, in his "Carnival," makes a no less strong claim on our attention, in his madly-moving throng of masquers, to whom the immobility of the white buildings and dark blue (scarcely dark enough to my mind) sky are a telling contrast.

On the lower line of this South Gallery are a number of paintings which are really good water-colour landscapes in the tradition of our English School, and to which I draw special attention, as some of them, hung below the eye-line, might be overlooked. Taken in order of numbers I pick out among these; Martin Hardie, "On the Brittany Coast," T. A. D. Wills, "Great Langdale," Claude Hayes, "In Wilts," another Martin Hardie, "Rosbiquot Bay," W. Egginton, "Tending Nets," Leonard Richmond, "Arthog, North Wales," Percy Lancaster, "Carting bracken."

Now let us turn to figure work. F. Matania, who achieved the success of last year's exhibition, confines himself to a small painting, "Flowers," in which the girl's figure is admirable in drawing. Henry Ryland is best in "A Gift of Roses"; but these pretty maidens in Greek costume tend toward the sugary. W. E. Webster has some good figures ("Vignette" and "Rest Time" besides his "Diana." Good architectural studies are Henry Brewer's "Belfry, Cordoba," and "Bridge of St. Martin, Toledo."

I am obliged to hold over to next week's Notes the exhibition of the Royal Society of Painters in Water Colour, and the interesting display of Modern Art at the Alpine Club Gallery, both of which opened last week.

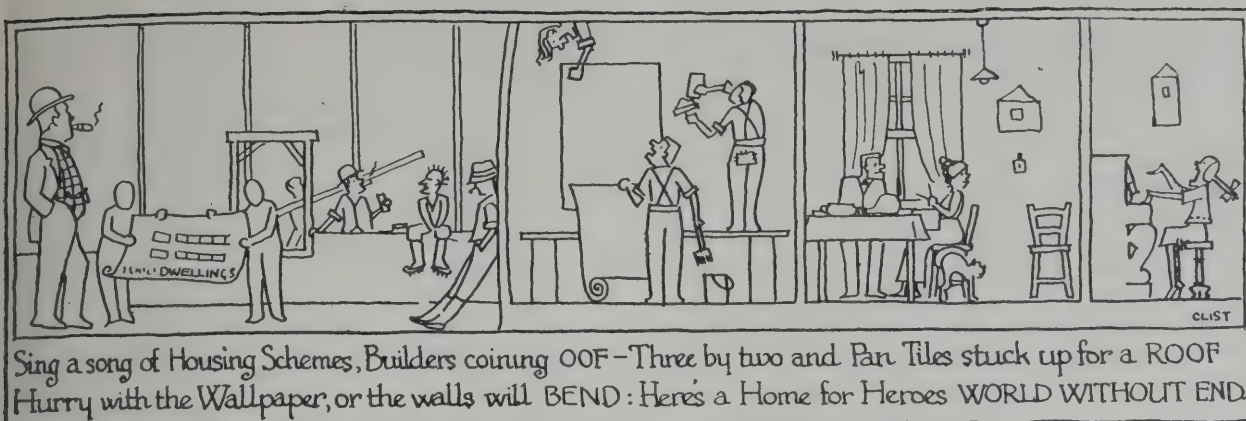
S. B.

## Art News of To-day.

THE sale-rooms at Messrs. Christie's last Friday, March 18, were not merely full, but overflowing. The interest seemed to centre in the fine group of Italian Primitives, which are alluded to in our Notes of this week. The beautiful "Nativity," by Botticelli, there mentioned, starting at 500 guineas, soon ran up in bids fifty to 2,000 guineas, and was bought at 2,050: just before this Mr. Agnew had secured Reynolds' superb "Mrs. Nisbett as Circe" for 2,100 guineas. The two interesting panels by Alunno di Domenico, also starting at 500 guineas, brought respectively 1,650 guineas and 1,600 guineas, and the "Amico di Sandro," "Virgin and Child," 1,300 guineas: only 700 guineas was realised for the profile head of a youth by Ambrogio da Predis. After this the rooms emptied so far that breathing space became available, but filled again for the Romney portraits, of which the beautiful "Clavering Children," starting at 1,000 guineas, fell to Mr. Frank Clarke for 5,000 guineas, and the "Lady Napier," immediately following, brought 3,000 guineas from Mr. Solley. The bidding, though fair, has been well described as in the Lenten mood.

The annual banquet of the Royal Institute of Water Colour Painters took place on Wednesday, the 16th, with Sir David Murray, P.R.I., as its President. In replying for the guests, the Spanish Ambassador remarked that it was on British soil that water-colour painting first grew and became general; and that modern art owed to Britain an elevating and refining influence—a service not easily to be over estimated.





## Contemporary British Architecture and its Immediate Ancestry.\*—I.

By H. S. Goodhart-Rendel.

BEFORE I begin, may I remind you in self-defence that I have undertaken to deliver a talk, and not a lecture, and that the subject of the talk is nothing more definite than the contemporary architecture of our country, with some little reference to its immediate ancestry, when ascertainable. I think that this subject is wide enough to justify a very discursive treatment of it, and I propose at least of all things to be either thorough or systematic in my remarks. Rather will it be my aim to present a few ideas which may be, and I hope will be, provocative of thought and discussion.

These ideas I have sorted roughly into three heaps, according as to whether they chiefly concern Monumental, Ecclesiastical or Domestic Architecture.

### I.—MONUMENTAL ARCHITECTURE.

By monumental architecture—which I shall take first—I do not only mean the architecture of buildings which the French would call monuments. I mean that certainly, and a great deal else as well. Any secular building which aims at any degree of dignity, however small, rather than at mere picturesqueness, I shall treat as being a work of monumental architecture, and you will see therefore that my domestic class will limit itself to buildings little and homely, since the larger kind of houses are apt to qualify as monumental. Street and business architecture will fall within the monumental class almost entirely.

Now, in monumental architecture, according to this loose and convenient definition, a great deal can be learnt by looking back a few decades of years, and I propose to survey for a moment the state of things when the late Alfred Waterhouse made his *début* in monumental building in 1859. The occasion, as you know, was his winning the competition for the Assize Courts in this city. I do not suppose that it is possible to overrate the importance of this event in the subsequent history of nineteenth-century architecture. I am not proposing to defend the style of the façades, although if anybody made them the excuse to attack the Gothic Revival I should probably be tempted to do so. The Gothic Revival was a very important movement in the history of English architecture, and the sooner we lose our present habit of belittling it the better. That is, however, by the way. My object in speaking now of the Assize Courts building is to call attention to the immediate recognition which it obtained from a public for the most part prejudiced against its style, a recognition due to the merits of its arrangement and to its general convenience. The kind of thing to which people of the time had become accustomed in public buildings was a sort of suffering to be classically beautiful, running largely to columns and balustrades, generally in front of windows. Waterhouse gave them a building in which the architecture, at any rate, never got in anybody's way; and this was rightly felt to be an immense advance in the art. What Benjamin Woodward had failed to do in the Oxford

Museum four years before, what Lord Palmerston had just forbidden Scott to attempt in the Foreign Office, young Waterhouse achieved with his first effort. He reconciled the forms of mediæval architecture with the needs of his day, whereas the professors of classical architecture had failed to effect with their style any such reconciliation. The best that these latter gentlemen had done was to establish a sort of armed truce between use and beauty. In illustration of this, let me quote from an able eulogy of Edward Walters the following words: "Most of his warehouses, for the sake of light, face north, and he was ingenious in providing sufficient projections to counteract the absence of strong light and shade."

Ingenuity in preventing a warehouse facing north from looking like a warehouse facing north could not always be expected from every architect, and the public was therefore naturally disposed to welcome a new style in which it might not be needed. Gothic of some sort, therefore, became the accepted idiom in which the more progressive architectural ideas of the time were expressed, and a host of buildings—some of great merit—such as the Northampton and Congleton Town Halls, both by E. W. Godwin, the Law Courts in London, by G. E. Street, the Midland Hotel and Station, also in London, by Sir Gilbert Scott; and Cardiff Castle, by W. Burges, and some of less excellence which I will not particularise, resulted from Waterhouse's experiments. Of course, we can now see that in order to be sensible it is not necessary to be nearly as Gothic as all that, just as we ought to realise that in order to be classical it is not necessary to be nearly as pompous as a great many people would have us be.

This, however, is a digression. To return to Waterhouse and his confrères. I think the Town Hall here is justly accredited his masterpiece. You may not like the style—personally, I prefer it to a great deal that we are supposed to admire nowadays—but you must admit that it is an extraordinarily capable design throughout, moulded in its smallest detail by its programme. I do not pick out these two buildings because I have the honour of speaking at Manchester. Believe me, I should say the same anywhere, citing them as the best examples of the best work that was done at that date. Unfortunately, there was only one Waterhouse, and, still more unfortunately, much even of his work in other places has the merit of the plans and elevations, invariably great, obscured a little by a perfunctory and graceless overlay of architectural detail. At least, so it appears to us now. This detail was all that lesser men could copy, and copy it they did with terrible assiduity. In fact, the 'seventies and the 'eighties of the last century were in the main bad times for monumental architecture in England, when dignified planning seems hardly to have been understood at all. They were times of quickly changing fashions, during which men seemed to look upon architecture merely as the art of applying (alleged) ornament to structures which aimed at nothing nobler than sufficient utility and the utmost economy of space.

\* A paper read before the Manchester Society of Architects.



I will try and bridge the gap between that time and now by enumerating a few of the buildings which made reputations in their own day, some of the reputations surviving, with varying degrees of justification. The Free Library at Liverpool, designed by Thomas Allom, is regarded by some as an example of the survival of our eighteenth-century tradition, a notion which a knowledge of Allom's antecedents does not encourage. It is probably more admired now than it was at the time of its building, but I cannot think of it as anything other than an isolated phenomenon, and not a particularly interesting one at that. The Town Hall at Halifax is almost contemporary with the Assize Courts here, and foreshadows the developments that might have been expected in the style of its architect, Sir Charles Barry, had he not died before the building was completed. The plan of this building is good, as were all the plans by Barry. The architecture is difficult for us to swallow, and it is not true to say (by the way) that the more exuberant features of it are due to Sir Charles's son, Edward M. Barry, although this is commonly stated.

Sir Gilbert Scott, whose costly but insipid buildings made for him perhaps the best-known name among English architects of his time, did not, as is commonly supposed, confine his energies to church-building. On the contrary, he particularly prided himself on a style of secular Gothic which he claimed to have invented, a style which occasionally arose to the grandeur of such works as the Midland Railway Hotel in London, but which more often remained on a dead level of elegant expensiveness. The Glasgow University, the infirmary at Leeds, the Town Hall at Preston, Beckett's Bank at Leeds—these are typical examples of his work in this manner.

One of the first buildings in which appeared the Queen Anne Revival to which Gothic began to give place about the year 1870, is the Leicester Town Hall. The building has more historic than positive interest, but it is pleasing to the eye and the precursor of an important change in architectural costume. The 'nineties gave us a good plan in that of the Imperial Institute, though here the architect was hampered by nobody being sure at the time, or indeed even afterwards, what the building was for. The Sheffield Town Hall, by the late Mr. Mountford, comes at about the same time, and appears to me chaotic inside and out.

Such plans as that of the Imperial Institute, and, better still, that of Sir Aston Webb's and Mr. Ingress Bell's excellent Law Courts at Birmingham, were exceptional. Most plans of the time show an almost incredible confusion and lack of dignity, as reference to any volume of the contemporary building papers will show. The elevations accompanying them generally display what is euphemistically called a free treatment of the Renaissance, in which the freedom is more apparent than the Renaissance. At Leicester, as I have said, the vogue was Queen Anne; in the very pretty Imperial Institute the symptoms are decidedly Spanish; at Sheffield they defy diagnosis.

The same sort of thing set in at Croydon, at Oxford, and in many other places with varying degrees of virulence. After a time the small detailed style which the customary use of terra-cotta had imposed gave way to a broader manner, with stone as the commonest material. The late J. M. Brydon, when adding to Woods' remarkable Town Hall at Bath, approximated his style to that of the older master, and the result was so much admired that a so-called Georgian type of design soon became general.

Now I am coming from what I have heard tell of to what I can actually remember, the last twenty years. Twenty years ago, let me remind you, the Neo-Grec movement was not. I rather fancy that we were still freely treating the poor old Renaissance, though in a way which was thought extremely novel and artistic. An excellent Soane-Medallion design by Mr. Fulton for an establishment of public baths was regarded not only as great architecture in conception, but as a pattern-book of the most up-to-date detail, a little more up-to-

date, perhaps, than our other model, the Institute of Chartered Accountants. I think we half believed that the only order of architecture we had to study was the Roman-Ionic, and that that order normally displayed a series of square blocks rusticated the lower third of the shaft. Other articles of faith at the time were that the key blocks could hardly be too large or too numerous, that it was a poor façade in which there was not room for at least a score of empty cartouches tied up with mixed greengrocery, that the most pleasing form of pediment was ogee-shaped, and that there was supreme virtue in a flat dome. I suppose that it is rash to speak disparagingly of all this sort of thing, since twenty years hence we shall undoubtedly be averting our eyes with shame from our Grecian pasts, and wondering what we saw in the fret patterns, the honeysuckles, the architraves with corner blocks, the acroteria, and all the other little pleasantries of our present taste. But you will observe, in the kaleidoscope which I am holding before your eyes, that, through all the changing styles, certain buildings stand out as fine architecture more in spite of than because of the details in which they are clothed. Can we hope that a larger number of our buildings to-day may be so distinguished from the mass by posterity? I think perhaps that we can.

There is one feature in which I fancy that British monumental architecture, at the outbreak of the late war, differed from its immediate ancestry. I think that we knew a little better than our fathers in what part of the architectural body the heart was placed. We still paid periodic visits to an architectural Clarkson's and tricked ourselves out in amazing disguises, but I think that we were beginning to be conscious that clothes were not everything. Now, what is the architectural heart of which the sanity of the whole body must depend? Surely it is something compact of reason and order, to which all decorative considerations are subservient. It is reason and order, as brilliantly dominant in the French mind, that have given to France an unbroken tradition of architectural supremacy in public works. It is reason and order which give us axial planning, the subordination of parts to the whole, just proportion, the due expression of plan in elevation—all the things which make what the ages have agreed upon as fine architecture. Now a great deal is written and said about these elements of our art, which is patently nonsense, and I do not expect that any of us are satisfied with our position in our long climb toward truth and beauty. But, after all, it is written and said, and thirty years ago few people thought it worth while writing or talking about. A lecturer on such a subject as mine, thirty years ago, would probably, with the complete consent of his audience, have spent most of his time giving tips for the latest tricks of style and detail which were likely to bring good fortune in competitions. To-day you expect me to discuss design, not petty larceny; and I do not attempt to describe what is meant by "design" since we are all agreed upon that. The only question is how to secure the power of design. Well, we have seen the Liverpool School as in some sort a pioneer, and many other excellent schools following in its footsteps. By the side of the Ecole des Beaux Arts our London and provincial schools may all seem a little suburban, but they are amazingly in advance of the standard of teaching twenty years ago. The trouble with it all is that we are not agreed upon a vernacular style such as that which Paris possesses. I think that it is towards the formation of such a style that all our efforts, and also our self-denial, should be directed. The Paris style and teaching is, if I may say so, foolproof; it does not hamper genius, but it *does* prevent the wanton and indecent self-revelations in which the incompetent English architect too often indulges. I think that everybody will know more or less what I mean when I say that the architectural manner which appears to have the most widespread acceptance is that associated with the name of Sir John Burnet, and possibly this manner may become our stock method of design. I do not think that if this happens that we shall have any right to complain. Sir John Burnet, whom personally I regard as artistically



the head of the profession in this country, will produce great works where his followers will perhaps only produce little ones; but a training in the general method which he employs will enable anybody reasonably competent to meet most of the difficulties and exigencies of modern practice with an artistic solution at hand. We must not, of course, push conformity too far. Personally I feel that it would be an unnecessary act of mortification for me to fall in with that preference for, shall I call it, the Assyrian, which members of this school so often betray. Sir John Burnet, if I mistake not, brought his perfect technique from France a good many years ago, and perhaps was a little influenced by the great men of that day, whereas we will more suitably be influenced by those of our own.

Let me on this subject utter a word of warning. The student who goes to Paris to study exclusively the Neo-Grec is regarded, and I think rightly so, by the Frenchman as we should a Parisian who made a pilgrimage to England to see exclusively the works of the late William Butterfield. The days of Hittorff and Labrousse, even of Duc and Ginain, are not our days, and the modern student must, whether he like it or not, regard the works of these artists as belonging to architecture already historical. For heaven's sake don't let us attempt yet another revival! If we go to Paris let us learn from the living men how to do the work of our own day.

Now the great fault of our modern attempts at Neo-Grec in England is that they appear in some sort conscious attempts at revival of the style of Wilkins, Hardwick, Smirke, Soane—whom you will. We do not study Cockerell, Barry, Gibson, Walters, Alexander Thomson in the right spirit. In fact, our seemingly innate vice of architectural kleptomania never deserts us, and instead of looking in the works of these masters for that which they can teach us in flexibility and modernity, I am afraid that we go nosing about for little bits that we can crib. There is hardly a stone in any one of Cockerell's best buildings which would fit any other situation than its own. That is what we must aim for in our buildings. And if we pile them up of loot from Cockerell it is not very likely that we shall succeed in this aim. After all, the Greek Revival, as seen in the works of Smirke, the Inwoods, and others, was a weak, palsied thing at best, and it is characteristic of our utter lack of even that degree of architectural discrimination with which all other European nations are endowed, that we confound the pedantry of such men as those with the outstanding merit of such artists as Cockerell and the others whom I have mentioned with him. I speak thus strongly because this confusion is one which I have made myself, led into that excessive reaction in which so many of us have found ourselves from the coarse and inflated bombast of the Norman Shaw school. Smirke could find no motif more suitable for the elevation of his National Opera House at Covent Garden—happily burnt down—than a Grecian Doric portico; and I have no doubt that we shall soon be masking our cinema theatres behind this august façade. The Bourse at Paris, the British Museum and Vulliamy's ridiculous front to the Royal Institution in London, are buildings of the absurdity of which I wish that I could feel confident that we were sufficiently aware. By all means let us be as Greek or as French or as Hindu as we like, provided we do not start any of these engaging amusements until we have satisfied not only all the utilitarian requirements of the structure, but also those perceptions of suitability, whether innate or through association, which are superior to all considerations of style. For myself, I have uttered the chief article of my creed when I say that to me Sir John Burnet is our leading architect in monumental design. I also, speaking with all diffidence of what must be in a measure a matter of taste, see in the work of a small school of architects, led by Mr. Charles Holden, a type of design which we need not be ashamed to put forward in Europe as something at once British and modern.

Perhaps here I may pay a tribute to the memory of Edwin Rickards, in whose genius, perhaps, Sir John Burnet's found its match. I hope that it will not be

forgotten that his first great opportunity, the Cardiff Town Hall and Law Courts, came to him through the catholic-minded and far-seeing award of Alfred Waterhouse in the competition held for the design of these buildings.

Before I turn from monumental architecture to that in my other two categories I would like to refer to one point of architectural ethics which often arises in designs of a stately and dignified order. I refer to that which Ruskin, perhaps, first defined as Architectural Truth. Now we all know the way in which, when we have clothed a complex plan in a regular architectural dress, some little feature sticks out and must either be allowed to destroy the regularity of the whole or must be masked and suppressed. We also know how a regular arrangement of windows is apt to give some rooms too much light, to others too little, when rooms are of varying size. Very likely we also know what it is to make a design for execution in fine materials and then to have to execute it in mean ones. Now in these cases, and in many others, the question arises as to whether we are justified in dissimulating that which we would not but must have, or simulating that which we cannot have but would. I think that what is called "a hatred of shams" is a deposit in our minds from the Gothic revival which clouds our thought when it is stirred. Yet it is only by stirring it that we can hope for any clarification. Let us try to lay aside prejudice and look at the matter impartially. Architecture appeals primarily to the eye, and whatever further appeal it may have must certainly be made through the eye rather than through any other organ of perception. I therefore fail to see that the actual facts and materials of a building are the business of the spectator. Surely, if the delight we have in a beautiful design apparently carried out in bronze and marble is to turn to loathing at the particular moment in which we realise that the bronze is but iron, the marble plaster, our æsthetic senses are inconveniently involved with our moral scruples, and I doubt if either can gain by the association. Such moral scruples themselves are doubtfully rational. I do not see that we can blame the architect for giving us a pleasing illusion of dwelling in marble halls, any more than we can the conductor of an orchestra who, in default of the real things, gives us bassoons pretending to be horns. What matters is the effect upon the eye or ear. The means by which the effect is produced is not our concern. On the other hand, a composer will fall into very bad habits if he neglect the characteristics of the bassoon through keeping it constantly busy being a horn. Similarly, the architect will lose much if he forget that plaster has other potentialities beside that of being a good vehicle for the imitation of stone or of marble. Most purely architectural forms have been moulded, if not suggested, by the manner of their making, and this source of invention will be unquenchable so long as buildings are not only drawn but built.

True, if you start designing a building with the intention of dressing up anything inconvenient to look like something else, you are cutting yourself off from all collaboration with your materials. The natural forces which prompted the inventors of the column, the lintel, the arch, and the buttress will stand aloof, sulkily refusing you their aid. Baroque architecture, that amazing and enchanting enterprise in which men sought to make the art of the architect independent from that of the builder, fed upon itself for a while, fed parasitically upon the art of the sculptor for a little longer, and then died of indigestion. No; the architect must design always as though everything in his building were to be what it appears. Only so can he guard against a host of errors peculiar to those who simulate and dissimulate. No thought must cross his mind that although that stone column looks too weak in itself it will be a steel stanchion really, or that it seems a pity not to repeat those white marble bas-reliefs somewhere, since it is only the first cost of the mould that makes them



expensive. If, however, when he has designed his building for real materials, it has to be built cheaply of sham ones, the eye must be his sole judge. If the eye be pleased, well and good. If, however, the scagliola, the stucco, the bronzed iron and the graining are markedly inferior in colour and surface to those things which they aspire to resemble, it may be that the architect would have been wiser had he done without them altogether.

I think that it is the same thing with the design of a building, taken as a whole. A man must have a preternatural interest in back staircases if he wishes to see such a feature expressed upon the exterior of a monumental elevation. The part must ever be dominated by the whole, and if the main masses of a building are such as to suggest a symmetrical grouping of them, it is obvious that minor dissimilarities in parts similar in the main are artistically irrelevant, and need not be architecturally expressed. The Gothic revivalists disliked such suppressions and adjustments, and challenged the principle, affirmed at the Renaissance, that it is lawful to give to a composite building the appearance of unity. Of course, the whole war between symmetry and asymmetry resolves itself into a dispute as to what shall be the size of the unit which you elect to make symmetrical. The most symmetrical building in a city must form part of some unsymmetrical group, and there is no building so unsymmetrical that it is not itself a group of symmetrical parts. If you design merely by agglomeration, adding room to room, each room having its own roof visible externally, you will have neither temptation nor excuse for making any one of those rooms unsymmetrical, save in so far as its position in relation to the others may demand. The Law Courts in London are an agglomeration nearly as simple as this, and I should say that, as a design, this great building fails. The Gothic Revival, however, in the main, did not succeed in reversing the decision of the Renaissance that many of the units of ordinary buildings are too small to be expressed separately, and should therefore be combined in larger units, sub-divided so as to suit various purposes.

In consequence of this it is often found that the regular features of the composite unit will not fit all its sub-divisions equally well. In such a case they must be *made* to fit, and the architect is not reasonably open to blame if he has recourse to a sham window or so in doing this. While on the subject of sham windows, may I register my opinion that the window visibly blocked up is the most abominable of all architectural features, and that anyone designing such a window would be better advised to leave it out altogether. It calls attention to the irregularity which presumably it is intended to conceal. A sham window, to be efficient, should be glazed to resemble its real neighbours, unless indeed the building of which it is a part is provided with external shutters, in which case the sham window may have such shutters apparently permanently closed. The whole moral of sham windows, screen walls, concealed chimneys, and things of the kind is generally one of justification by necessity. The architect who uses them because he had adopted a type of elevation generally unsuitable to his plan must expect short shrift from the critic. But the architect should receive shorter shrift still who lets some silly scruple prevent him from tactfully concealing those inevitable irregularities which are always lying in wait in these days to spoil any broad and simple design.

(To be concluded.)

ARRANGEMENTS have been concluded to hold a competition open to past and present students of Edinburgh College of Art and Glasgow School of Art for the best design for the "Sutherland Shield," gifted by Sir Wm. Sutherland, K.C.B., M.P., to Cowal Highland Gathering for pipe-band contests. Valuable prizes are offered. H.R.H. Princess Louise, Duchess of Argyll, will act as adjudicator. Designs must be characteristic of County Sutherland, with Dunoon burgh coat of arms included.

## The Threatened City Churches.

IN June 1920 the President of the Royal Academy invited the principal bodies in London representing architecture, art, and archaeology to confer together on the recommendations of the City of London Churches Commission, 1919.

Twelve societies or institutions nominated representatives, as follows:—

*Royal Academy of Arts.*—Sir Aston Webb, K.C.V.O. C.B., P.R.A., and J. Seymour Lucas, Esq., R.A.

*National Trust.*—The Earl of Plymouth, Nigel Bond, Esq., and S. H. Hamer, Esq.

*Society for the Protection of Ancient Buildings.*—Earl Ferrers and the Rev. T. T. Norgate.

*Society of Antiquaries.*—Sir Hercules Read, P.S.A., and C. R. Peers, Esq.

*Victoria and Albert Museum.*—Sir Cecil H. Smith, C.V.O.

*Royal Institute of British Architects.*—J. W. Simpson, Esq., P.R.I.B.A., and George Hubbard, Esq., F.S.A., F.R.I.B.A.

*London Society.*—Sir Reginald Blomfield, R.A., Litt.D., and Carmichael Thomas, Esq.

*City Churches Preservation Society.*—Edwin Freshfield, Esq.

*London Survey Committee.*—Philip Norman, Esq., LL.D., F.S.A.

*Civic Arts Association.*—Edward Warren, Esq., F.S.A., F.R.I.B.A., and Arthur Stratton, Esq.

*British Archaeological Association.*—Charles E. Keyser, Esq., F.S.A.

*Metropolitan Public Gardens Association.*—Bernard Gibson, Esq., and Basil Holmes, Esq.

Conferences were accordingly held at the Royal Academy, and it was decided to submit the following considerations, recommendations, and suggestions for the consideration of the Bishop of London:—

At a time when the worship of material success has secured a hold upon such large numbers of the people of this country it is, in our opinion, a most dangerous policy for those in power to diminish the number of churches in a commercial centre like the City of London, where, whether in actual use or not, they do at least serve as reminders that there are other and worthier goals than the acquisition of wealth alone.

We feel strongly that an evil precedent will be created if the Church of England is a party to the destruction of monuments of the past which are irreplaceable, and we are glad to find that Lord Hugh Cecil, in his Note appended to the Report of the Commission, in some degree shares our misgivings on this point. Further, the fact that the monuments are churches on the one hand, and on the other that the consideration is a monetary one, will, in our judgment, react upon the Church itself in a mischievous way.

There is a further argument, set out by Mr. Edwin Freshfield, that the churches built after the Great Fire were not a gift to the Church; they were rebuilt by taxation of the people, and they are supported by rating in lieu of tithes, a fact that is not brought out in the Report of the Commission.

The City Corporation has entered a strong protest against the removal of these churches, and, in our opinion, far stronger reasons than those at present put forward are required to justify the destruction of these buildings and the disposal of their sites in order to erect churches in other places unconnected with the City, and for people whose duty it is to provide their own churches, and whose increased incomes should make it possible for them to do so.

Independently of the actual legal ownership of the churches, we consider it important to remember that in a sense they are the inheritance, not of the diocese of London, nor even of the people of this country alone, but equally of our kinsmen of the Colonies and Dominions, who are as a rule possessed of a more reverent spirit than ourselves for such memorials of the past, and



who, it can hardly be doubted, will regard the proposed destruction with dismay and regret.

We are well aware that there is already throughout the country a tendency to destroy ancient remains, either through ignorance or from the prevalence of a too commercial spirit. If London were to set an example of such wholesale destruction as is now proposed it would, in our opinion, have a fatal effect over the kingdom at large, and lead to the disappearance of much that is precious.

Although the fabrics of the churches are no doubt the main subject to consider, it has to be borne in mind, in addition, that they frequently contain memorials of distinguished citizens, intimately associated with the history of the City or of the country. Removal of the buildings would assuredly destroy the significance of such memorials, even if they continued to exist elsewhere.

There is further the question of the equipment of these buildings, not only of a structural character, such as, woodwork, glass, and bells, but more portable objects, such as plate; in many instances these have been dedicated to the service of an individual church, and their alienation would involve the destruction of important historical data.

It is evident that, in the case of some churches, the great value of the site lies in the churchyards. These are at present protected by Act of Parliament; but it would be a flagrant reversal of the public policy of the last thirty years if these, almost the only remaining open spaces in the City, were to be covered with buildings. If and when such a proposal becomes imminent it is certain that the public will enter a vigorous protest, quite apart from the question of the consecration of the land itself.

We recognise that the distinguished gentlemen who formed the Commission were amply qualified to decide upon the greater part of the issues involved; but we venture to demur, with all respect, to accepting them as authorities upon artistic and architectural questions. We think that our reluctance is justified by the suggestions in the Report (a) that in seven cases the body of the church should be demolished and the tower left standing, and (b) that in some cases the internal fittings might be preserved for use in another church. We regard both these proposals as architecturally and artistically improper.

In the same way we consider it is not a solution to remove and re-erect these churches elsewhere. It would be an artistic blunder to re-erect them in any surroundings not identical with the original sites. Archaeologically it would be dishonest. Moreover, many of the churches in plan and construction would be singularly unsuited to the needs of a suburban parish.

For the foregoing reasons we desire to protest emphatically against the destruction of the nineteen churches scheduled by the Commission. We notice that the Commissioners used the phrase that "due reverence" should be observed in devoting some of these sacred buildings to secular uses. We would venture to say that to recommend the destruction of any one of them can hardly conduce to their reverent treatment.

(Signed) ASTON WEBB,  
Chairman.

In July 1920 this memorial was forwarded to the Bishop of London, who has sent the following reply:—  
Fulham Palace, S.W. 6.  
February 16, 1921.

DEAR SIR ASTON WEBB,

Thank you for your letter of the 14th instant, on the subject of the City churches.

I can assure you that no wholesale demolition of nineteen City churches is contemplated. At the present time I am giving my mind to the question of grouping certain of the City parishes, or the possibility of uniting them with poor parishes in the suburbs.

It is possible that some few may eventually have to be pulled down or removed, but this would only be done

after grave consideration of every case and due regard to the general welfare of the Church at large.

While I hate myself to remove any old church, I cannot shut my eyes to the pressing question of the poverty of the clergy, and the provision of the spiritual needs of people who have at present no church at all and no means of providing one.

Yours sincerely,  
(Signed) A. F. LONDON.

## The Architectural Association.

THE following are the Council's nominations for House List, Session, 1921-22:—

*President*.—W. G. Newton, M.A., A.R.I.B.A.

*Vice-Presidents*.—F. C. Eden, M.A., and E. Stanley Hall, F.R.I.B.A.

*Treasurer*.—Stanley Hamp, A.R.I.B.A.

*Editor*.—M. J. Tapper, A.R.I.B.A.

*Librarian*.—G. G. Wornum.

*Hon. Secretary*.—J. Alan Slater, M.A., A.R.I.B.A.

### ORDINARY MEMBERS OF THE COUNCIL.

G. Gilbert Scott, A.R.A., F.R.I.B.A. (Past-President), Major H. Barnes, M.P., F.R.I.B.A., C. Williams Ellis, Cyril A. Farey, A.R.I.B.A., H. I. Merriman, A.R.I.B.A., A. Silcock, A.R.I.B.A., L. S. Sullivan, A.R.I.B.A., M. T. Waterhouse, A.R.I.B.A., A. B. Ll. Roberts, T. M. Wilson, Gilbert H. Jenkins, H. H. Moberly, T. S. Tait, and Manning Robertson.

## Correspondence.

### The Architectural Association and its Needs.

To the Editor of THE ARCHITECT.

SIR,—In your issue of March 18 I notice a suggestion from Mr. Horace Field that the architectural schools should form a Central Board to consider the question of raising the general quality of architectural design.

It is not necessary to form any new body for such a purpose. The recently formed Committee of Teachers of the Board of Architectural Education is already in a position to do this work. Your readers may be interested to know the constitution of the Committee as at present formed. It consists of: Mr. Robert Atkinson, Director of Education at the Architectural Association; Professor C. H. Reilly, of the Liverpool University School of Architecture; Professor A. C. Dickie, of the Manchester University School of Architecture; Professor A. E. Richardson, of the University of London School of Architecture; Professor Beresford Pite, of the Royal College of Art; Mr. W. S. Purchon, of the Cardiff Technical College.

In addition to these representative teachers, the Committee also contains *ex officio* the honorary officers of the Board of Architectural Education—Mr. Paul Waterhouse, the Chairman; Mr. Walter Cave and Mr. Maurice Webb, Vice-Chairmen; Mr. W. G. Newton, the Hon. Secretary.—Yours, &c.,

IAN MACALISTER, Secretary.

The Royal Institute of British Architects,  
9 Conduit Street, Regent Street, London, W. 1,  
March 18, 1921.

## "The Architect" Fifty Years Ago.

MARCH 25, 1871.

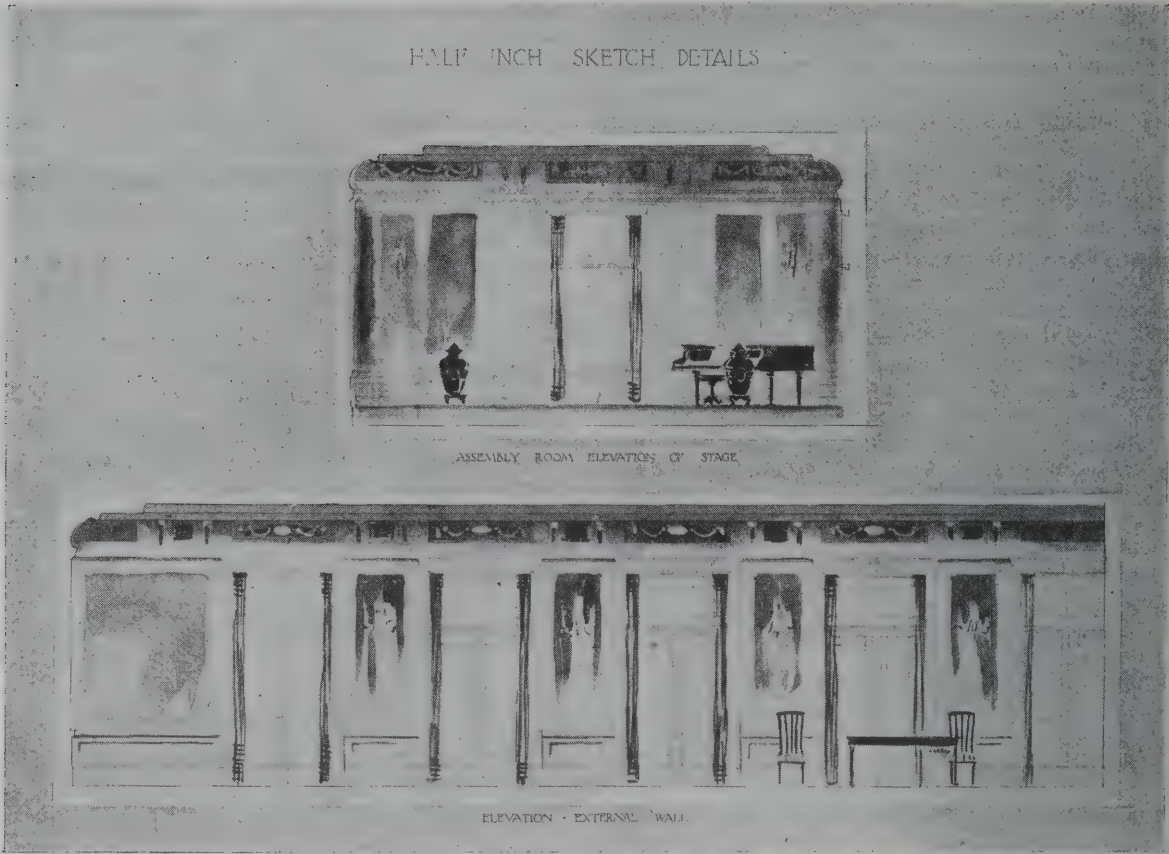
ROYAL INSTITUTE OF ARCHITECTS.

ON Monday evening no little curiosity might have been reasonably felt to see how matters would go on after what some are inclined to call a revolution. We have much pleasure in reporting that everything passed off very well. Although the accustomed countenance of the Honorary Secretaries was denied, and the supporting chairs of the chair presidential were so far empty that the stipendiary magistrate now supposed to be constituted in the person of Mr. Eastlake was constrained to attempt his best at short notice to occupy one of them, and do the duty of both, yet everything passed off very well indeed.

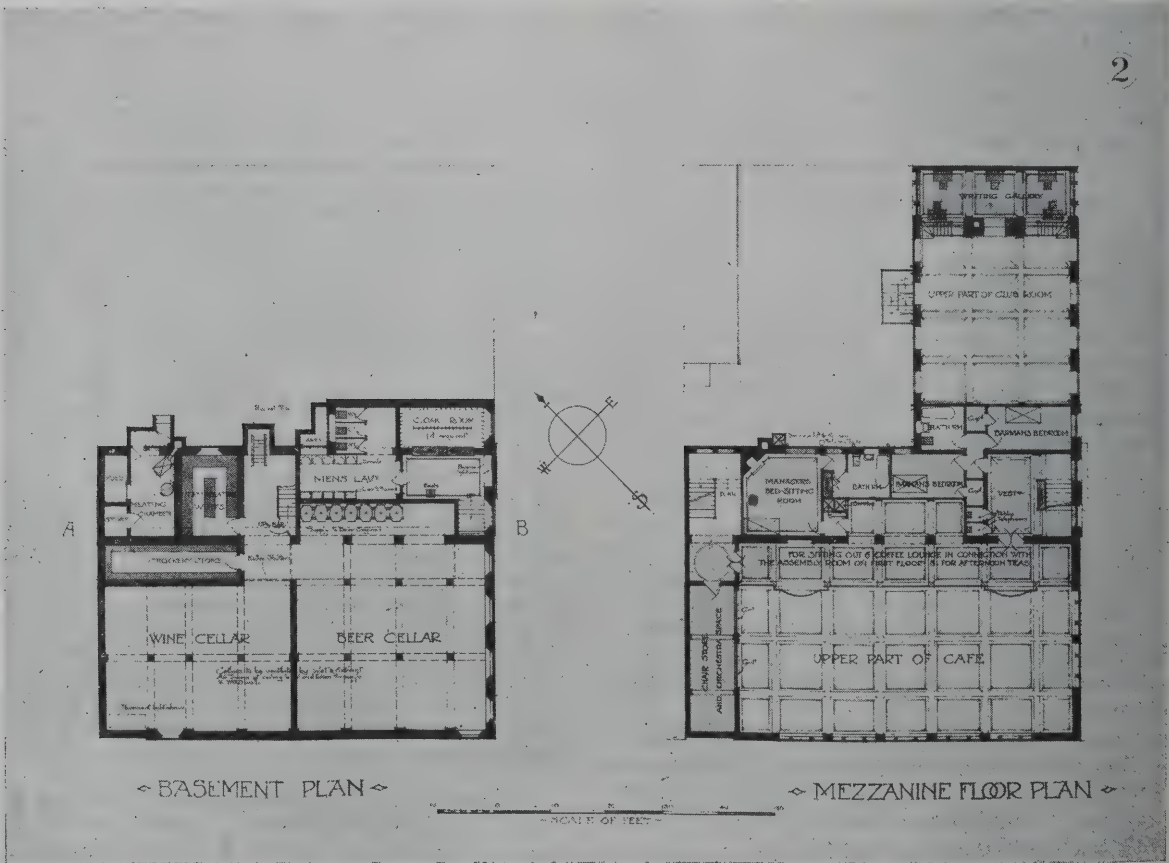
THE Secretary of the Health Week Committee, appointed by the Royal Sanitary Institute, announces that H.M. the King and H.M. the Queen have again graciously accorded their patronage to "Health Week," which will be held this year during the month of October.



Brewers Company's Competition.  
(See Inset Illustrations.)



INTERIOR TREATMENT OF DESIGN PLACED FIRST.



BASEMENT AND MEZZANINE FLOOR PLANS. DESIGN PLACED THIRD.



## Rural Signposts.—II.

By Charles G. Harper.



"BETTY'S GRAVE," NEAR CIRENCESTER.

There is down in Gloucestershire, near Quenington, a signpost oddly lettered on one of its three arms, "Betty's Grave." At the foot of that post is the actual grave of Betty, represented by a grassy mound. Her surname does not seem to have survived. Legends declare that he was a local person who wagered she would reap an acre of wheat with her own sickle within a certain time. She performed the feat, according to this story but then fell dead, and was buried here. So much for the legend. But the fact seems to be that she lived at the neighbouring village of Poulshot, and that she poisoned herself; afterwards being buried at the cross-roads, in accordance with the barbarous custom once prevailing in cases of suicide.

Another arm of this exceptional signpost points to "Ready Token, 365 feet above the sea." That name probably indicated originally some tall post, or tree, intended for the guidance of travellers in times when the country was unenclosed, and wayfarers needed beacons; as in the case of Bassett's Pole, a hamlet in the region of Lichfield. That was in the long ago a wild spot at which one of the local Bassett family set up a lofty pole, which could be seen at a great distance. There was then no hamlet there. Now there is a hamlet, there is no pole. It is not needed.

"Ready Token," which, without any evidence for it, the late Mr. Anthony Gibb, in his book, "A Cotswold Village," guesses to have been originally a Welsh name, "Rhyd-y-Tacn," is seen distinctly on its height,

"365 feet above the sea," from these cross-roads, partly enshrouded amid trees. Now a farmhouse, it was once an inn. Situated at the junction of the Hatherop—Quenington, Cirencester and Bibury—Meisey Hampton roads, on the Icknield Way, it was probably one of the humbler inns used in the old days by drovers. "A rough place, they do tell me, by all accounts," remarked a rustic to the present writer. It looks an eerie place. All the windows facing the road have been built up.

Not often did the old road-authorities expend time and money on duly signposting their highways, but here and there they rose to an especial situation in the matter of milestones. Excepting Roman milestones, which are nearly all in museums and in no case in use to-day, we have no milestones earlier than that set up near Tadcaster in 1700 by a private benefactor, eager to serve his fellow-men, or perhaps so bored by travellers calling at his house and enquiring the way, that he installed the stone in sheer self-defence.

But the Turnpike Trustees who placed at the junction of the Old North Road and the Great North Road, at the crest of Alconbury Hill, the monumental-looking pillar which has stood there for about a hundred and fifty years, certainly achieved something unusual. It must have seemed to them that these two great routes to the far north required special recognition.

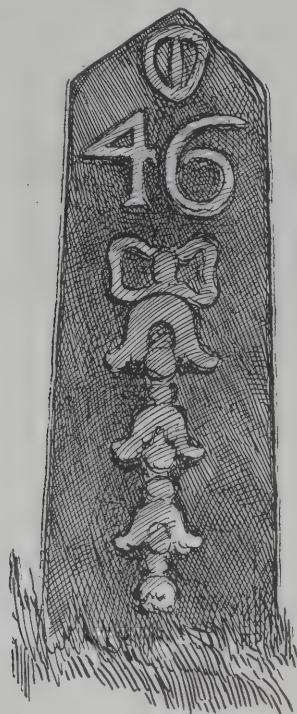
There was, a few years ago, a passionate discussion about the milestones on the London and Eastbourne Road.



MONUMENTAL MILESTONE, ALCONBURY HILL, ON THE GREAT NORTH ROAD.

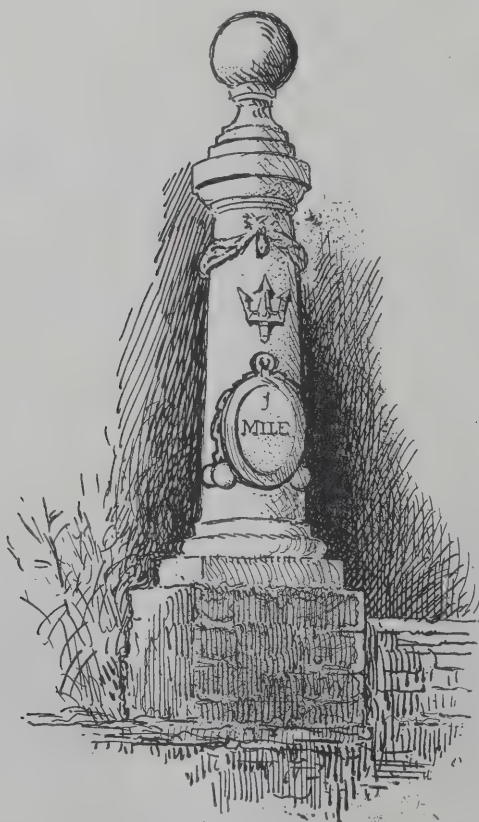


I cannot write passionately about milestones, even when they are not stones but when made of iron, as these are. The excitement and agitation arose about the design on these cast-iron mile marks, which to the uninstructed



SUSSEX IRON MILE POST, WITH "GARRYA-HUSK SWAG" DESIGN.

appeared to represent a string of bells; alluding, rather obscurely, to so many miles from "Bow Bells." Any one curious to see these singular objects will find them readily enough on the road through East Grinstead. The



DECORATIVE MILESTONE, HEYWOOD HALL, QUEEN'S COUNTY. Formerly One Mile from Dublin.

illustration of one of them here will resolve the so-called "mystery" of the design to any architect or designer. Not "bells," but the familiar motive of the "garrya husk swag" forms this decoration: a device originating in the

*garrya elliptica* shrub, whose catkins and natural growth were taken as the basis of decorative design as early as the first half of the eighteenth century, and greatly exploited by the Adam Brothers and by Chippendale. It has been left to modern architects during the last twenty years or more to revive his characteristic decoration, and, in truth, rather to overdo the use of it, in public buildings, of the current intimidating eclectic Renaissance type. The late John Belcher was fond of styling it the "lady's feather boa" motive.

The reason for this device being used on milestones has been lost, probably because there was not any reason beyond the surveyor to that particular Turnpike Trust having artistic ideas. The little device on the apex of the milestone is the well-known heraldic charge, the "Pelham Buckle," but the reason of it appearing on the design has not emerged, except perhaps that the Pelhams, Earls of Chichester, are extensive landowners in some parts of Sussex.

The finest of all milestones, however, are the two now forming ornamental pillars in the gardens of Heywood Hall, the seat of Lt.-Col. Hutchinson Poë, at Ballinakill, sixty-two miles from Dublin. They originally marked one mile from Dublin, and were set up in that period when Dublin was becoming a seat, not only of wealth, learning, and fashion, but also of stately architecture. It was that time, about 1785, when John Beresford, the banker, brought over from England James Gandon, the English architect to whom Dublin owed so much of her architectural distinction as a capital city. Mountjoy Square, Rutland Square, Merrian Square, and above all the Custom House, remain to prove his genius. The milestones themselves are worthy of the best in that era, and bear boldly sculptured that trident symbol of admiralty which typifies the maritime position of the city.

MR. ROBERT FINNEGAN, of East Park Parade, Northampton, contractor, who was responsible for the building of the promenade and sea wall at Blackpool, the electric tramways at Great Crosby, and many large contracts for the London and North-Western Railway, left £65,573.

THE Senate of London University have been informed that the agreement as to the new site between the Duke of Bedford and the Office of Works contains a clause that the University buildings at Bloomsbury must be put up before April 1926, and if they are not erected by that time the Duke is to have the option of repurchasing the property for £425,000—the price he has been paid for it. If he does not exercise this option within six months of the stipulated period the property will revert to the Government to do what they like with it.

THE National Federation of House Builders held their annual conference at the Midland Hotel, Birmingham, on the 16th and 17th inst., under the presidency of Mr. H. M. Grant. At the final meeting the following resolution was adopted on the proposal of Mr. Robinson (Grimsby), seconded by Mr. Brown (Manchester):—(1) That the housing policy of the Government should be reorganised and based on a definite and equal grant to all agencies building houses. (2) That the D.B.M. should be closed and the stock of materials disposed of, all orders cancelled, and all control of prices discontinued. (3) That drastic powers should be taken to deal with trade combines which force up prices. (4) That a manifesto embodying these points, with a reasoned statement advocating their adoption should be sent to the Government, the two Houses of Parliament, and the Press.

In the House of Commons last week Dr. Addison said he had received representations from the contractor to the Tredegar Urban District Council to the effect that he had entered into a contract with that body to erect a number of wooden bungalows, on which he was employing a number of ex-Service men who were *bona-fide* carpenters, but whom the trade unions termed "dilutees," and that the trade unions had demanded the immediate dismissal of these men or, in the alternative, that the Urban District Council should cancel the contract. The model form of contract on which the contract in question was based contained nothing which would enable the Council to prohibit the employment of ex-Service men, and he was informing the contractor and the Council accordingly.



**CONCRETE BLOCKS "KING" PLASTER SLABS**

**WALLS PARTITIONS ROOFS**

**FIBROUS PLASTER CEILING SLABS**

*Ferro-Concrete and Glass Constructions*

**"FERRO GLASS" PAVEMENT LIGHTS**

**"KING" CONCRETE GLAZING BARS**

**A. KING & CO.**

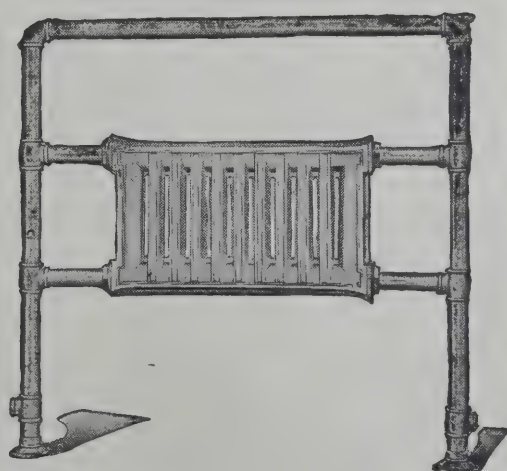
181, QUEEN VICTORIA ST., LONDON, E.C., and  
BRITANNIA BUILDINGS, LEEDS.  
Tel: City 2213 and Cent. 773, and Leeds 22712.

## Ideal Towel Rails.

Ideal Towel Rails form a very advantageous and convenient addition to a Hot Water Supply apparatus. They are now available in a large variety of patterns and sizes or can be made to specification in a few days.

Ideal Towel Rails are regularly manufactured from  $\frac{3}{4}$  in. to  $1\frac{1}{2}$  in. solid drawn brass tubes—polished or nickel-plated.

The No. 10 Towel Rail illustrated contains 11 sq. feet of heating surface—sufficient to warm a Bath Room of moderate size—can be supplied in the plated finish or plain for enamelling.



*Write for further particulars.*

**NATIONAL RADIATOR COMPANY**  
LIMITED.

Offices, Showrooms & Works: HULL, Yorks.  
Telephone: Central 4220. Telegrams: "Radiators, Hull."

London Showrooms: 439 & 441 Oxford Street, W.1.  
Telephone: Mayfair 2153. Telegrams: "Liableness, London."



## Impermeability in Concrete.

At the last meeting of the Concrete Institute a paper, entitled "Some Methods of Securing Impermeability in Concrete," was read by Mr. Ewart S. Andrews, B.Sc. (Eng.). The common methods of avoiding permeability were divided into two main classifications:—A.—Void-filling Methods: (1) Preventing voids by dense concrete; (2) integral preparations: (a) materials added in making concrete, (b) modified cements. B.—Coating Methods.

These methods were considered in some detail, the nature of the principal special methods employed being indicated. There was, said Mr. Andrews, no doubt that one of the best ways to make concrete impermeable was to grade and mix it properly. Careful experiments had shown that concrete can be made waterproof by careful proportioning, mixing, and supervision, without the addition of waterproofing compounds. This applied particularly to the case in which, as in reinforced concrete, for purposes of strength it is desirable to employ a concrete comparatively rich in cement. With any given aggregate it was possible to determine by simple experiments the proportion of mix to give the densest concrete. The densest concrete will also be the strongest and least permeable concrete. It seemed remarkable that so little attention is bestowed in this country on the determination of the mix for given materials to give the densest material. Most people seemed to be content to keep to the round-number mixes 1: 2: 4 or 1: 3: 6, in spite of the proved fact that these mixes are often wasteful in the most expensive material—viz. the cement. When this round-number mix is given up the usual method is that of grading by the measurement of voids. The author quoted with approval the following statement by Mr. W. B. Fuller, which appears in Chapter X. of "Concrete, Plain and Reinforced," by Taylor and Thompson: "Since cement is always the most expensive ingredient, the reduction of its quantity, which may very frequently be made by adjusting the proportion of the aggregate so as to use less cement and yet produce a concrete with the same density, strength and impermeability is of the utmost importance. As an example of such saving, the ordinary mixture for watertight concrete is about 1: 2: 4 requiring 1.51 barrels of cement per cubic yard of concrete. By carefully grading the materials by methods of chemical analysis, the writer has obtained watertight concrete with a mixture of about 1: 3: 7, using only 0.97 barrel of cement per cubic yard of concrete. The determination of proportion by finding the volume of water which may be poured into the voids of a unit volume of stone and selecting a volume of sand equal to this volume of water is one which gives no better results in practice than arbitrary selection of the proportion. The determination of the proportion of cement to sand by void measurement is still more misleading."

Mr. Andrews next proceeded to describe various "Integral" preparations. One method of reducing permeability of concrete by means of the "Integral" system consists in the use of certain materials which are added to the concrete when it is being mixed, their function being merely to fill up the voids in the concrete. Others, commonly of the soap family, have a chemical action upon the cement, while others are claimed to have a kind of catalytic action in promoting the formation of colloids, which increase the hydration of the cement. Some of the preparations are of a fatty nature, and are commonly regarded as having a lubricating action which enables the materials to slide more easily into a compact form. A very large number of finely ground inert materials have been found to decrease the permeability of concrete, mention being made by the author of feldspar, clay, sand, and Portland cement (ground finer than normal). One of the oldest methods of waterproofing concrete was the Sylvester process, which consists in applying coats of soap and alum. The two materials combine to form an insoluble aluminium soap or stearate of aluminium. The same process is also used as an "integral" preparation, the alum being often mixed with the cement, and the

soap with the mixing water. Other chemically similar methods consist in the addition of materials, which will cause the formation of the insoluble calcium stearate in the pores of the concrete. Some of the best-known preparations on the market are of this kind. According to Mr. Andrews, there appears to be evidence that the void-filling materials of the soap type are liable to become ineffective in the course of time. Many waterproofing and concrete-hardening preparations consist of powdered pig iron or iron filings, which oxidise and expand, thus filling the voids in the concrete. Sodium silicates (water glass) and potassium silicate, both of which are soluble in water, have been employed for increasing the impermeability of concrete. A number of proprietary brands of cement have appeared from time to time in which various materials are mixed with Portland cement clinker and ground up with it, with the intention of increasing the impermeability of the cement.

Coating methods for securing impermeability were next discussed, and they were divided into two types:—(a) those employed to prevent the materials used from attacking the concrete chemically, and (b) those employed to form a dense layer in the concrete.

In his conclusion, Mr. Andrews stated that one of the difficulties in coming to practical conclusions on this subject was that so many of the data are based upon tests made under laboratory conditions. The trend of the evidence appeared to be that if great care is taken in the grading, mixing, and placing of the concrete, a voidless concrete can be obtained, and that such concrete is as good as, if not better than, that obtained with the special preparations. Some of the advocates of these special preparations argue that in practice it is impossible to exercise the great care necessary for this result, and that therefore some special treatment is necessary. Such statements are often supported by experimental test results made by engineers of unimpeachable standing, and showing that an increased strength results from the use of the particular material. But the argument against laboratory conditions is a boomerang which may come back to the thrower. The test results obtained with special preparations are also made under laboratory conditions, and in the case of integral mixtures it may be assumed that the added materials will be more thoroughly mixed with the concrete than can be assumed to occur in practice. If these materials are not uniformly mixed with the concrete in actual practice, as seems probable, it is at least doubtful if their effect will be as good as can be obtained in laboratory tests.

Mr. Andrews had no doubt, from the large number of recorded experiences of engineers which he had studied, that in practice the addition of certain materials to the concrete gave better results than had previously been obtained under the ordinary practical conditions. From the practical point of view, therefore, it has to be decided whether it costs less to exert the meticulous care in grading and supervision than to add these special preparations. This depends to some extent upon the nature of the structure and the strength of the concrete required to resist the forces acting upon it. In reinforced concrete structures a concrete of such strength is required that it must have the amount of cement which, if properly graded and mixed, would give a practically impermeable concrete. In other cases such strength might not be called for, and it might prove cheaper to employ an inert void-filling material than to add more cement.

PROGRESS is reported in the creation of a riverside suburb on the Thames at Ditton, near Hampton Court. A company registered under the title of Utopia, who intend to cut an artificial waterway half a mile in length leading to a garden city, which is to be complete with Turkish baths, tennis and sports grounds; an extensive motor garage and boat-house. The scheme is to cost a sum of about a million pounds, and Venetian bridges will add a picturesque touch to the design which is to be planned on a scale of 1,500 flats, and on the lines of a garden city, having its own shops and electrical station. The work has already commenced, but will proceed with by easy stages.



# REDPATH BROWN & CO., LTD. CONSTRUCTIONAL ENGINEERS





## South Wales Institute of Architects.

THE Annual Dinner of the South Wales Institute of Architects was held at Cardiff on March 10.

Mr. Ivor P. Jones, A.R.I.B.A. (President) was in the chair and the guest of honour was Mr. J. W. Simpson, F.R.I.B.A., President of the Royal Institute of British Architects, supported by Sir Charles Ruthen, F.R.I.B.A. (President of the Society of Architects), Mr. F. R. Yerbury (Secretary of the Architectural Association), and Mr. T. Taliesin Rees, F.R.I.B.A. (President of the Liverpool Architectural Society).

Mr. Ivor Jones reviewed the recent work of the South Wales Institute of Architects, pointing out the great increase of membership and the genuine awakening of interest in architectural matters in South Wales, and emphasising the fact that, but for the wise guidance of the Royal Institute of British Architects, the sympathetic help of the Society of Architects and the interest of the Architectural Association and the Allied Societies the South Wales Institute could not possibly do the work it had done in the past and hoped to do in the future.

Mr. J. W. Simpson in responding for the R.I.B.A. pointed out that architects needed to keep before them the ideal of "good building" to be attained by a high standard of practice, and that they could, by seeking election on Municipal Councils, do a great deal for the community with their special knowledge, and also for the profession by showing the public that architects, because of their training, are practical men. He also laid stress on the need for a proper understanding between architects and builders, if there was to result good work which would in its turn win the approval of the general public and so gain for architects generally the credit to which they were entitled.

Sir Charles Ruthen in responding for the Society of Architects pleaded strongly for registration, pointing out that other professions did not allow anybody to practice until he had proved himself capable and efficient, whereas the so-called architect was often an individual possessing no architectural qualifications, the consequence being a general lowering of the high standard aimed at by the profession.

Mr. F. R. Yerbury in responding for the Architectural Association referred to the educational work of the Association and the South Wales School of Architecture, predicting a successful career for the latter under its able head, Mr. W. S. Purchon.

Mr. Taliesin Rees responding for the Allied Societies spoke of the new resolution of the R.I.B.A. to hold their Council Meetings periodically in the provinces, a movement which would give the Allied Societies more prestige locally and greatly encourage them in their work.

The toast of the South Wales Master Builders Employers' Federation was proposed by Mr. H. C. Portsmouth, F.S.Arc., in which he referred to the danger to the architectural profession through the activities of the Office of Works, and the further waste of public money by a Government Department endeavouring to perform the impossible by acting as its own architect and contractor.

Mr. E. W. King, the President of the Federation, responded.

Councillor E. C. M. Willmott, A.R.I.B.A., proposed the toast of the guests, responded to by Dr. Evans Hoyle (Director of the Welsh National Museum) and Mr. R. O. Saunderson (President of the Cardiff Chamber of Commerce).

The presence of the President of the R.I.B.A. and the large number of members and distinguished guests made the occasion an important one for South Wales architects, and there is no doubt that the renewed interest of the members in their Institute will in the future bring good results to South Wales. The whole of the arrangements for the Dinner were carried out by Mr. Percy Thomas, O.B.E., A.R.I.B.A.

## General.

AN obelisk, 22 feet high, from a design by Sir T. G. Jackson, R.A., is to be erected on Wimbledon Common as a war memorial.

THE exhibition in the R.I.B.A. Galleries of design submitted in the competition promoted by the Brewer Company for a type design for a licensed house in a large town will re-open on March 30, after the Easter holidays and will finally close on Saturday, April 2.

THE Wrexham Housing Committee have decided to proceed with the building of the second batch of new houses at Acton Park, and tenders are to be invited. The number will be 134, of which 82 will be parlour and 52 non-parlour type. This second batch of houses will bring the total to 252 out of the 600 decided upon when Acton Park was purchased by the Wrexham Corporation.

At a public meeting held at Malvern on the 18th inst. the design for a war memorial, submitted by Sir Aston Webb, P.R.A., and Mr. R. R. Goulden (sculptor) was approved subject to such modifications as may be found necessary. It includes a figure representing the spirit of Youth, bearing aloft the lamp of progress, rising triumphant from thorns and difficulties in the path. It is proposed to erect the memorial in the grounds of the Malvern Public Library.

THE death has occurred of Mr. E. Isle Hubbard, M.S.A. architect, late of Rotherham. On his retirement from the profession about seventeen years ago, he settled at Sleights near Whitby. Mr. Hubbard was best known as a church architect in South Yorkshire. A number of important restorations of parish churches like that at Mexborough have been superintended by him. He also carried through the erection of St. Michael's Church, Rotherham, and St. George's, Brinsworth.

At the last meeting of the Corporation of London, in reply to a question, Mr. J. R. Pakeman said that as long ago as July of last year the Corporation had passed a resolution instructing the City Land Committee to consider what steps should be taken for the artistic and architectural development of the City, and for the preservation of premises of antiquarian and historic importance, and that both the Chief Commoner and the City Surveyor were members of the Royal Institute of British Architects, and were in touch with that important authority on the question of the beautification of London.

A RECENT survey has shown that the ancient glass of the west window of Winchester Cathedral is in a dangerous condition, the leadwork having perished, the glass itself being cracked and split, while several pieces have already fallen out. It has been discovered that a large quantity of the glass is the wrong side out, thus exposing the painted side. It will be necessary to remove many panels, and replace them correctly. The window was originally glazed about 1386. It was damaged in the Civil Wars, and at the restoration of 1660 was repaired with fragments taken from all parts of the cathedral.

At a meeting at Welshpool relative to the proposed War Memorial the Earl of Powis reported that Sir Aston Webb, P.R.A., had offered through him to design the memorial for the borough, deeming that the site fronting the historic fourteenth-century church of St. Mary's was one of the finest for the purpose in the country and that he should do something really fine with it. A town of the size of Welshpool, his lordship added, was extremely fortunate in being able to secure such an eminent man as the cost was not to be more than £600, and men of Sir Aston's eminence were engaged on big schemes. It was unanimously decided to ask Sir Aston to design the memorial.

A SCOTTISH Housing and Town Planning Congress, under the auspices of the Scottish National Housing and Town Planning Committee, will be held at Edinburgh on April 1 and 20. Sir Henry Ballantyne, chairman of the Royal Commission on Housing in Scotland, will preside, and it is anticipated that from three to four hundred delegates will attend, representing Town Councils, County Councils, and District Committees, Architectural and Technical Associations, and associations of employers and workmen in all parts of Scotland. The Congress will be asked to reaffirm the recommendations of the Royal Commission on Housing in Scotland, and a resolution will be submitted calling on Scottish members of Parliament to fulfil the housing pledges given at the last election in favour of the adoption and carrying into effect of a series of measures calculated to sweep Scotland clear of the bad conditions as to housing overcrowding laid bare in the Report of the Royal Commission.



## CONTENTS.

"Art in Common Life" . . . . .	PAGE 219	Proposed Berks, Bucks, and Oxon Architectural Association . . . . .	PAGE 224
Illustrations . . . . .	220	Contemporary British Architecture and its Immediate Ancestry.—II. . . . .	226
Notes and Comments . . . . .	220	Correspondence . . . . .	228
"The Architect" Fifty Years Ago . . . . .	221	The Architectural Association . . . . .	229
London Art Galleries: Art News of To-day . . . . .	222	Forthcoming Events . . . . .	232
Architectural Impressions in the Engadine . . . . .	223	Light Castings for Buildings . . . . .	232
St. Mary Abchurch (Illustrated) . . . . .	224		
New Books . . . . .	224		

**"Art in Common Life."**

"THE TIMES" suggests, in a series of articles, that the cause of Art might be advanced by the formation of a Committee of Taste, the constituent members of which should be mainly drawn from members of the three callings of painting, sculpture, and architecture, in order that the æsthetic standard of the objects of our common life should be improved. The correspondence on the subject, in which Sir Aston Webb, Sir Reginald Blomfield, Mr. Arthur Keen, Mr. Anning Bell, and Professor Lethaby have taken part, shows the topic to be one of interest to many, and, generally speaking, most of the writers welcome the action of "The Times" in opening up a discussion. Such movements have often been suggested here, and have always aroused more or less animated discussion, but we rather feel, with the "Manchester Guardian," that a large number of bodies are already doing useful work of the kind proposed, and it is doubtful whether any new committee can be formed which would have sufficient authority and weight to forward matters. Such committees—which are usually advisory rather than executive—are in the nature of things largely composed of men who if eminent can only give passing attention to their new duties, and if not well known or eminent have not sufficient influence to further their aims.

Some years ago the advisability of forming a Ministry of Fine Arts was under discussion, but today, after the lessons of the war, most of us are little inclined to favour the creation of new departments which must necessarily and fundamentally be bureaucratic in their nature. The curtailment rather than increase of the number of our departments is what most of us are praying for in the present.

"Art in Common Life" covers a multitude of things, but of these Architecture, as representing the building in our midst, is one of the most important. It is reasonable and pertinent to ask how the various authorities representing the public have exercised the powers they possess, and to consider whether or not they might with advantage be given increased authority and what the nature of their powers should be.

In rural and urban districts, city, town, and rural councils have been properly and rightly chiefly concerned with measures of administration which have for their object the promotion of public health and security. As far as the lay-out of new districts is concerned the adoption of the Housing and Town-planning Act—means for putting which in operation are in the hands of the electorate of every district—can be used to ensure an orderly and well-considered lay-out plan. The public, bewildered by the multiplicity of new laws and regulations are for the greater part even now unaware of the extensive nature of the powers they possess, but these are amply sufficient if exercised to secure a good groundwork on which to start. Urban improvement of closely built-over areas is necessarily a far more difficult

matter owing to its enormous cost, but in this direction much good work has been done, and more will be inaugurated if financial conditions render it possible. What is really needed is that those who wish to do public service in æsthetic matters should seek representation on bodies which have executive power rather than endeavouring to influence them through the medium of outside organisations which have no definite *locus standi*. Then, again, we should consider the record of some of the great bodies which actually carry out building work, among which the London County Council may be especially referred to. If we consider the schools, fire stations, and housing work which it has carried out during the term of its existence we are of opinion that any impartial critic would say it had fulfilled its functions not only in practical but in æsthetic matters. We may say that here or there a private architect of note might have done something better in the design of individual buildings, but, taken as a whole, the work carried out under the superintendence of Mr. Riley is a credit to the metropolis and to the efficiency of its administration. We have in London a great legacy from past ages, but the work of the County Council forms a valuable heritage for future generations, and has set a standard of high achievement. In a word, the cause "Art in Common Life" has been advanced by the London County Council and its advisers. Now we should like to see such a body strengthened by the inclusion of some of those who want to work for betterment, and we should like to see it and other similar bodies given powers for dealing with that curse of our towns—the displayed advertisement. We do not think it should be within the power of any private person to put advertisements over his building; we think that shopkeepers should be confined to uniform lettering of a given size in one position only, and we would even give local authorities powers to regulate the width of shop windows in relation to the visible supports. For regulation in these matters, if applied universally, would hurt no one but would help the cause of "Art in Common Life."

The architectural profession, too, might do much by education, and, as we suggested, might include as part of a student's curriculum practice in designing street frontages placed between buildings of divergent character. For we are in many cases in our practice guilty of "bad manners"; we design a street front as if it stood alone, or even try to make adjoining buildings look ashamed of themselves. It is not always the client, but sometimes his architect, who makes a building look like a poster, the chief object of which is to startle the passer-by.

We have not much faith in the efforts of societies for promoting æsthetics, but have more in the result of the ability and common sense of the actual designer. If our work is good and reasonable the public in general, and our clients in particular, will accept it, and the cause of æsthetics will be furthered. We cannot, we fear, convince the public by our



eloquence, but it may be possible to obtain their growing sympathy by our actual work.

Our world is over full in the present of societies and movements for showing others what they should do, and many who take part in them have not removed the mote from their own eye, and are, therefore, not in a position to remove the beam from that of their neighbour's.

In minor matters of design much good might be done by the promotion of interest by the institution of competitions. We should, for instance, be much interested in seeing the outcome of a competition for a public letter-box. Mr. J. W. Simpson considers the design of our "scarlet sentinels" as being satisfactory, but, though we admit they serve their purpose, we believe our designers could improve on them. Of

street lamps and standards the same may certainly be said, and if "The Times" or "Daily Mail" or anyone else would hold a competition for such common objects they would do a useful work, but as far as the broader issue is concerned we question whether the time has yet arrived for the "Committee of Taste," and would rather urge the fuller utilisation of the means we have for improving "Art in Common Life" than the creation of further Committees or Departments; while, as for a Ministry of Arts, the bare mention of a new Government Department would now be vetoed by an overwhelming majority. The great want of the present is the reconstitution of industry and commerce after the wreck produced by the great war, and those whose work lies in the direction of the Arts can best serve those interests by achievement rather than by propaganda.

### Illustrations.

NOTRE DAME, PARIS, AND THE HAYMARKET, LONDON. By J. TIM MACDONALD.

WE give the above illustrations of Mr. J. Tim Macdonald's work. Mr. Macdonald, who works with his son, Mr. E. H. G. Macdonald, is widely known as a water-colour artist who has devoted much attention to architectural work in colour, wash, and ink. He is well known in

Liverpool, of which city he is a native and in which he received his training. He is a member of the Liverpool Sketching Club, and his work has been shown at most of the large exhibitions in the country. His address is 51 Mandrake Road, Upper Tooting, S.W. 17.

EAST HAM GENERAL HOSPITAL COMPETITION: DESIGN PLACED FIRST. By F. E. MENNIE & C. B. SMITH, Architects.

This competition was reviewed in our last week's issue.

### Notes and Comments.

#### Rheims Cathedral.

THE fate of Rheims Cathedral has not yet been decided, the Commission instituted by the law of April 17, 1918, to pronounce on the future of the public buildings damaged during the war not having up to the present come to any decision with regard to Rheims. The Commission will have to decide between two alternatives—the complete restoration of the Cathedral as it was before the war, in so far as this is humanly possible, and the leaving of the charred and mutilated building just as it stands, as a memorial of the ruthlessness of the enemies of everything beautiful. Both solutions have their partisans. Those who demand the restoration estimate that a sum of 125,000,000 francs (nominally £5,000,000) will be required, this figure being based on calculations made by Cardinal Luçon, Archbishop of Rheims. Among the many difficulties of restoration that of the glazing is the greatest, but a master glassworker, M. Richard Burgsthal, claims to have re-discovered the qualities of ancient glass, including the luminosity. It is known that this luminosity results from the fact that the two surfaces of the glass are not parallel, the convex and concave surfaces receiving the light in prismatic angles, an effect which in modern glass is to a certain extent recaptured by painting. It is now stated that M. Burgsthal and M. Fayer, for whom the former executed thirty windows of perfect colouring and luminosity for the ancient abbey of Fontfroide, are ready to offer to France the entire reconstitution of the wonderful stained glass windows of Rheims.

#### Industrial Art and Museums.

PROFESSOR WILLIAM ROTHENSTEIN gave an exceedingly able and convincing address at the Royal Society of Arts which shows that he is fully alive to the conditions of the time and the difficulties which have to be dealt with and solved. Speaking of museums he said that the greater number of them existed for the connoisseur and that this was the wrong basis on which to work. It was necessary in a centre like London to have great research collections, but smaller provincial museums should be formed with the object of helping creative spirits and manufacturers throughout the country to

solve their own difficult problems. The question was whether we were making full use of the human material in the country, and are our museums and schools of art helping us to make use of it? If a man intended to become an engineer, a doctor or a manufacturer, not only are greater chances given him but he is treated with infinitely more social respect than people with creative gifts. Was it not the case that the designer of a great manufacturing firm sometimes received a wage which would not be accepted by a village schoolmaster? He made the excellent suggestion that research scholarships should be founded for designers, so that picked men could have the advantage of some years of work unharrassed by pecuniary trouble; and he compared art and commerce to the two parties of a marriage, the conditions of which should be honourable and equitable to both. If this could not be effected we might find that the interests of commerce would in the end be damaged if not destroyed, because the added strength it might gain from designers in improving the necessities of our daily life was not utilised.

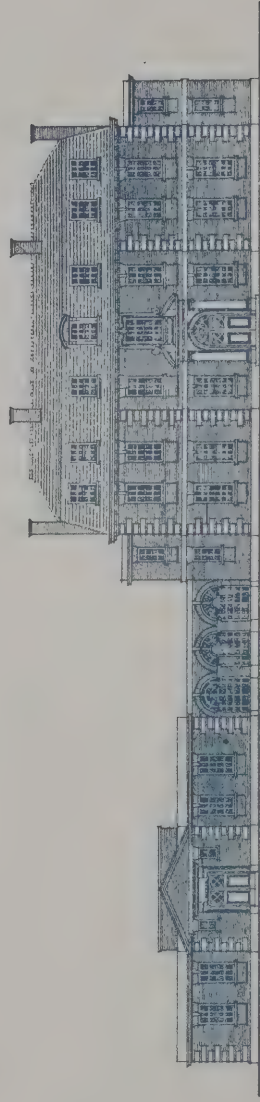
#### Libraries.

SOME years ago hardly a week passed without the announcement of a small library competition for a building to be carried out from grants from the Carnegie Fund. These small libraries cost anything from £2,000 to £6,000, and the public and the profession usually had all the excitement of a public competition, in which 20 to 200 architects took part. For a small library at East Greenwich, costing about £5,000, 180 architects competed. The public opening of these little buildings was usually a municipal event. But times have changed owing to the cost of materials and labour, and the Executive Committee of the Carnegie United Kingdom Trust reports that the special reserve, which is accumulating against commitments incurred, has risen to £414,765, and it is impossible to say when beneficiaries will be in a position to claim payment of the sums which this accumulated reserve represents, because to do so they must either reduce their proposals or raise from other sources at least twice the amount of the Carnegie grant. This is but another sign of the manner in which industry is being held up by present prices. Whether we have

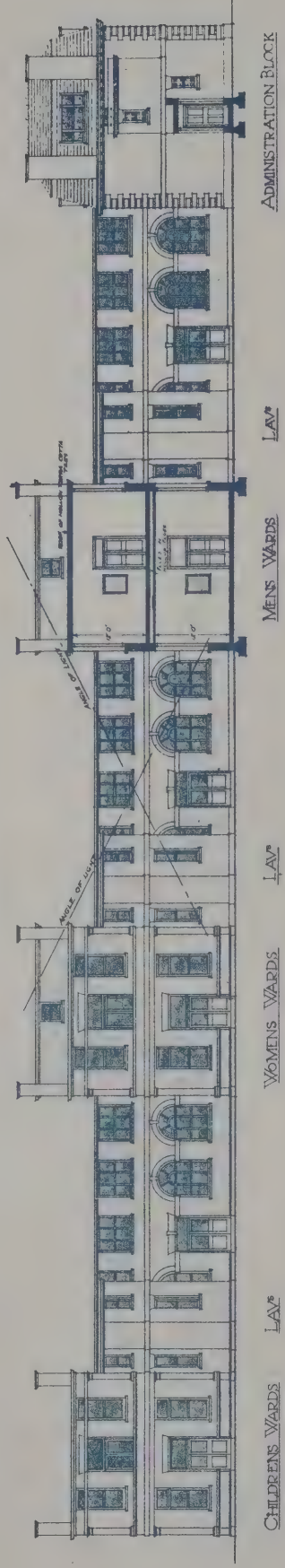




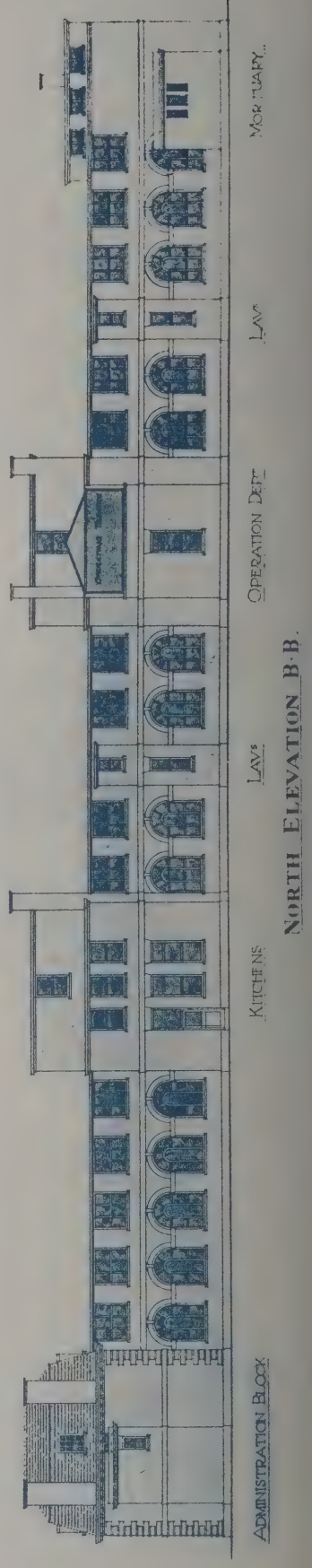
EAST HAM HOSPITAL.



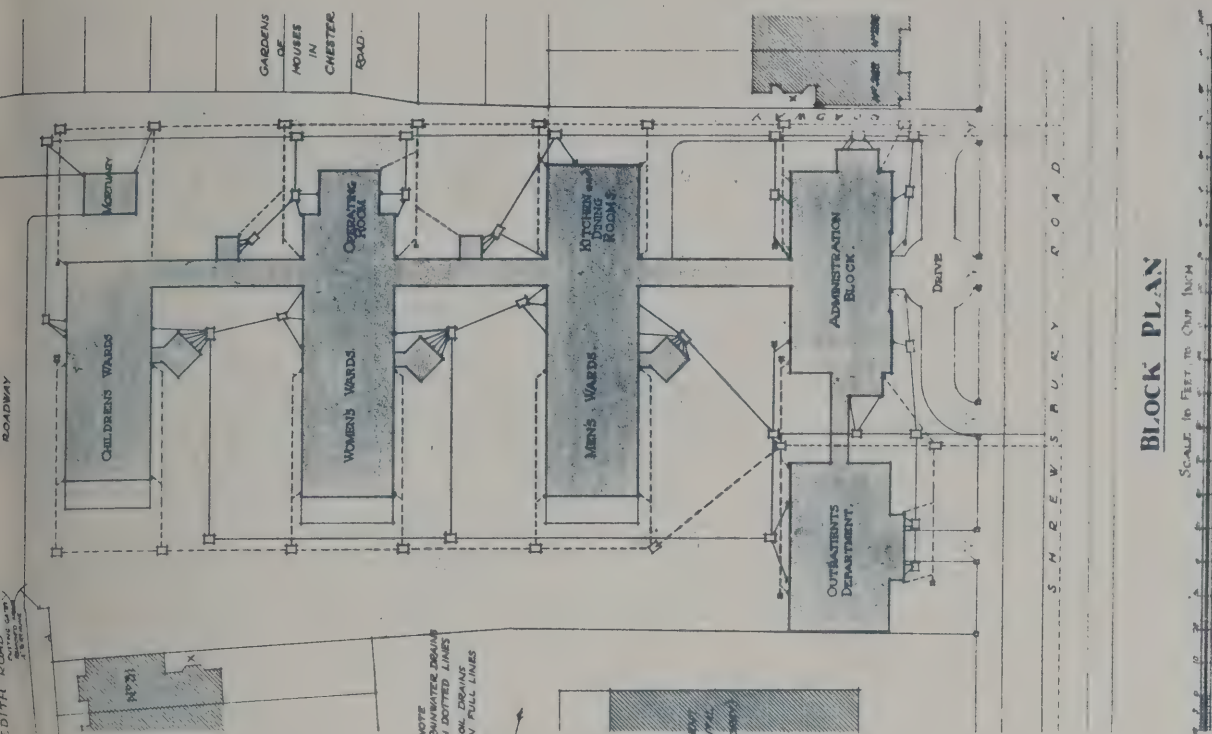
ELEVATION TO SHREWSBURY ROAD.



SOUTH ELEVATION and SECTION A.A.







BLOCK PLAN

SCALE IN FEET TO ONE INCH

SCREENLESS PHOTO PROCESS, SPRAGUE-HAYCOCK (PRINTERS) LTD, 69 & 70, DEAN STREET, LONDON, W.1.



CHILDRENS' WARD.

SECTION D.D.



MENS' WARD.

SECTION E.E.



WOMENS' WARD.

ELEVATION F.F.

SCALE 1/4" = 1' TO 1" IN 1"

EAST HAM GENERAL HOSPITAL COMPETITION: DESIGN PLACED FIRST.

BY F. E. MENNIE & C. B. SMITH, ARCHITECTS.

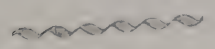




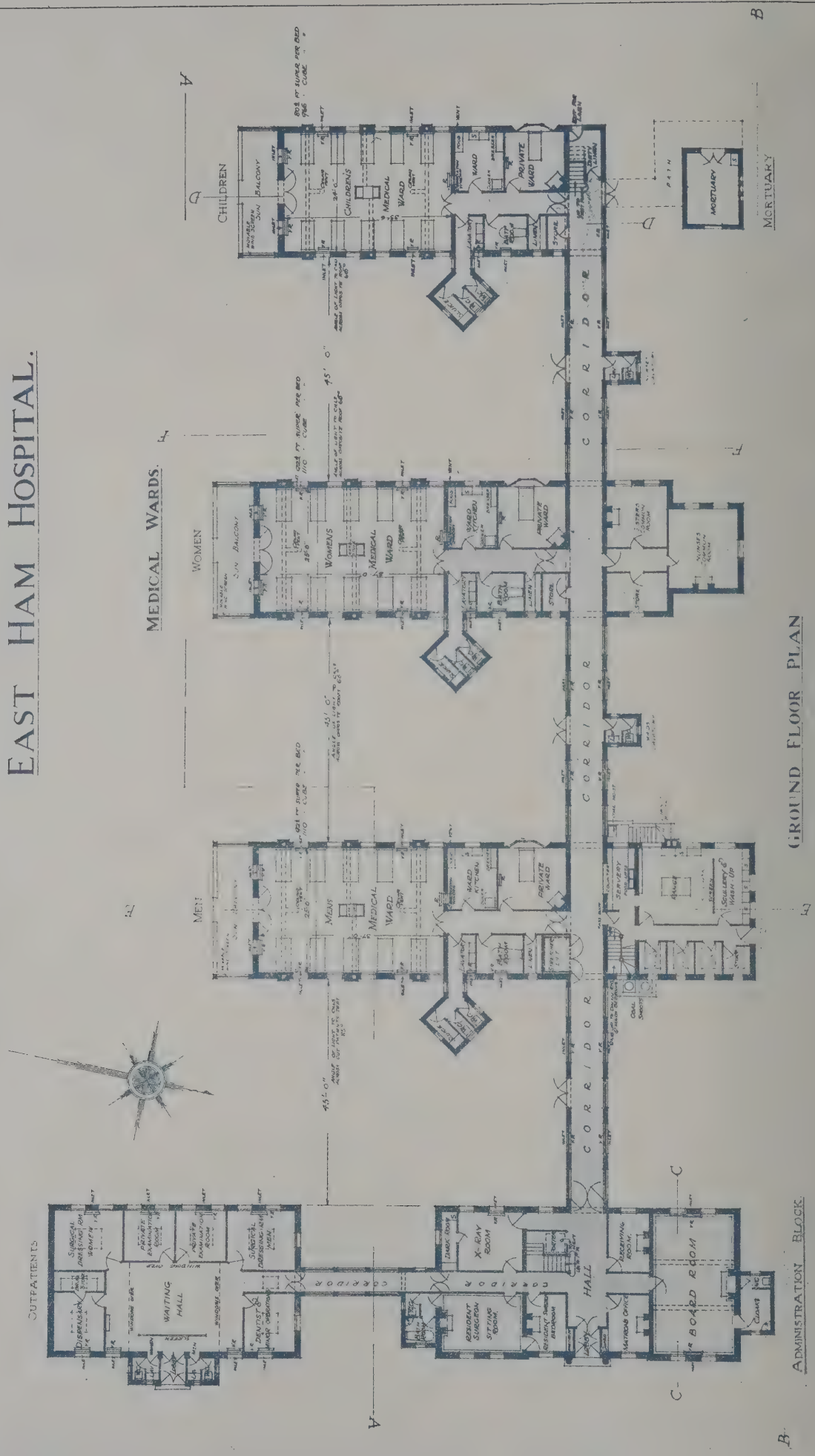
Arch.

UNIVERSITY OF ILLINOIS LIBRARY

APR 22 1921



EAST HAM HOSPITAL.



GROUND FLOOR PLAN

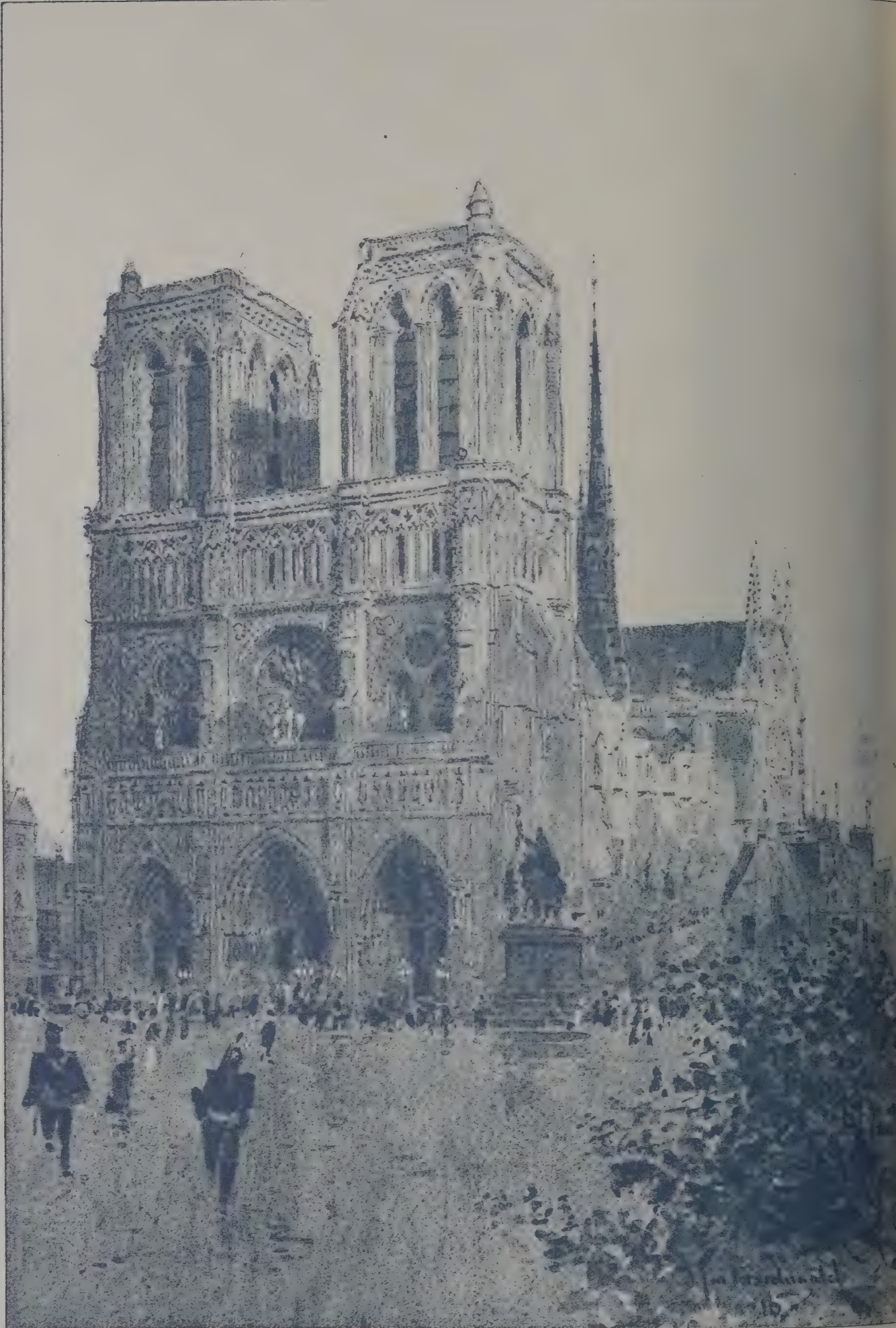












SCREENLESS PHOTO PROCESS, SPRAGUE-HAYCOCK (PRINTERS) LTD. 69 & 70, DEAN STREET, LONDON.

NOTRE DAME, PARIS.

BY J. TIM MACDONALD.





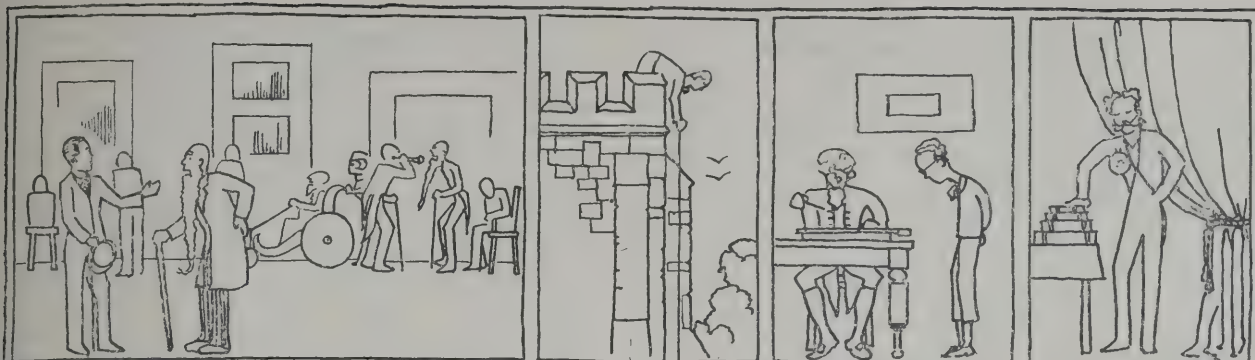
SCREENLESS PHOTO PROCESS, SPRAGUE-HAYCOCK (PRINTERS) LTD. 69 & 70, DEAN STREET, LONDON, W.1.

THE HAYMARKET, LONDON.

BY J. TIM MACDONALD.







You are old FATHER WILLIAM, the Young Man said,  
And your brain is perhaps touched with BLIGHT,  
But our WORK you continue to judge with much zest—  
Do you think at your age IT IS RIGHT ???

In my youth said the SAGE, I acquired great fame  
By my skill with the TAPE and FOOT RULE,  
And I cautiously copied IDEAS from PAPA—  
You can't possibly THINK I'm a FOOL !!!!

a few more free libraries or not may not much matter, but it does matter when the same causes are operating against the carrying out of every class of building in the country.

### A Broadway Reconstruction.

ONE of the few remaining low buildings in Broadway is to be pulled down, and unfortunately the building to be demolished was designed by Stanford White. Some months ago, when the Gordon Bennett newspapers were purchased by Mr. Frank Munsey, the "Herald" moved to a position on Lower Broadway, to which the "Sun" also moved from its old home at the corner of Park Row and Nassau Street. Nearly thirty years ago the late James Gordon Bennett secured a lease of the Broadway property. It was then well up town. No skyscrapers then adorned the vicinity. There were no McAlpin Hotel, no Martinique, no Marbridge or Monolith building, no big department stores. Mr. Bennett had the "Herald" offices erected by Stanford White after the model of the Palazzo del Consiglio, the City Hall of Verona. The building was an exact replica, yet adapted cleverly to the needs of a modern newspaper office, and it has stood there through thirty years a seeming challenge to the great commercial monsters which have been raised on every side. The lease is now about to expire, and the site has now attained an assessment valuation of \$3,000,000 (over £600,000). It is thus one of the most valuable in Manhattan, the ground values of which, in some cases, exceed those obtained in the City of London owing to the great contraction of the peninsula and the concentration of important building at its lower end.

### The Admiral and Temple Bar.

ADMIRAL SIR HEDWORTH MEUX has made a telling and witty reply to the London Society's request for the return of Temple Bar to London. "In asking me to return Temple Bar the London Society shows more that an Ahab-like covetousness, for Naboth was offered compensation for his property. As Temple Bar was pulled down in 1878—43 years ago—there cannot be very many who remember it in its original site, and they then probably held the same views as "The Times." I do not believe there is an overwhelming desire for its return." We think the Admiral has reason, and it must be remembered that it was through his action that Temple Bar was preserved. We should at the same time be glad to see it rebuilt in London, but this incident may be taken as a lesson to the public not to destroy or part with monuments which a future generation may value more highly than a present one does. The 'seventies saw the demolition of many buildings which would be more highly prized to-day, including old Drapers Hall the fine woodwork and other craftsmen's work of which was sold, destroyed or dispersed without the retention of records other than plans being preserved. The greater part of Barbers Hall was demolished in the same way, and had the site of Crosby Hall been required at an earlier date the happy solution by which its preservation was ensured would never have been considered. When buildings of

historic or æsthetic importance must be demolished there would be much to be said for the compulsory prior publication of drawings and photographs in order that it might be ascertained whether or not it was possible to re-erect them on other sites and for other uses.

### The National Housing and Town Planning Association.

THE National Housing and Town Planning Association has sent us a great mass of literature giving an account of its varied activities in all questions relating to housing. They have held conferences covering different parts of the country which seem to have been attended by a large number of officials from towns within those areas, they are now considering means whereby suitable tenants may be selected for completed houses, the assessment of those houses and the provision for repairs, the clearance of slums, an attack on conditions of overcrowding, the payment of increased rents for houses unfit for human habitation, housing schemes and unemployed labour, the standards of construction of new houses, town planning and arterial roads, and the areas in which houses should be built, and their character. Under the guidance may we suggest of the ever-enthusiastic Mr. Aldridge all of the conferences passed the same recommendations on the above points, while in all nine districts ballots are to be held for the District Executive Committees. We note these signs of vitality with great interest and feel sure that had the nation been inspired with Mr. Aldridge's enthusiasm it would have been impossible to look out of the windows in any house in the land without seeing "homes for heroes." Had Mr. Aldridge only been able to solve the little financial problem which has caused some difficulty, and to inspire labour with his own enthusiasm, we should undoubtedly have seen a new England by now.

### "The Architect" Fifty Years Ago.

APRIL 1, 1871.

Two years ago the Institute voted to Sir William Tite, M.P., their late President, in return for many gifts and other kindnesses, the compliment of requesting him to sit for a portrait to be placed in their rooms. The painter selected was Mr. Knight, R.A. Various causes have combined to prevent the completion of the portrait till now; but the subscribers will be glad to hear that it is now ready for the coming Royal Academy Exhibition. We have also the pleasure of stating that it is both a remarkably fine work and a most striking likeness.

THE American Institute of Architects has been invited to make a comprehensive exhibition of American architecture at the Paris Salon, which opens in May 1921. The drawings will be selected by the Committee on Foreign Building Co-operation of the Institute acting as a jury. A charge of \$1.50 per square foot on drawings accepted will be made to cover cost of crating, storage, hanging, &c., the French Government paying the expenses of transportation to and from Paris. Insurance on exhibits can be arranged for by the Committee from the time of their departure from New York until their return at the rate of \$1.50 per hundred dollars, if desired by exhibitors.



## London Art Galleries.

(All rights reserved.)

THE present exhibition of the Royal Society of Painters in Water Colours, which opened last week, and will close on May 28 next, keeps a very good general level of achievement, as compared with previous years, without any new and outstanding features. This applies particularly to the landscape: for the figure work this year cannot be considered as in any way significant. We know in previous displays of this Society the work of Thorne Waite, J. C. Dollman, Robert Little, Harry Watson, William T. Wood, Moffat Lindler, Matthew Hale, Oliver Hall, Lamorna Birch, Cecil Hunt: we expect from them a high quality of landscape work in certain definite lines, and this year we are in no way disappointed. J. C. Dollman has this time mainly devoted himself to Sussex vale and downland; though his "Moose at bay" shows clever handling of wild animal life. Russell Flint has evidently been wandering south, as we gather from his subjects—a Spanish bull-fight, with the "banderillero" planting his dart; Bayonne with her wonderful mediæval fortifications; Avignon, the old city of the Popes; and a delightful study, "The Terrace." Thorne Waite reaches a high level in "The Hampshire Downs" and "The Afterglow," and Harry Watson, rather weak in "A Visitor," finds himself in his "Evening Sunlight," and in "Summer" treats to good effect the broken sunlight coming through and upon the trees.

Brilliant in its handling is the President's contribution, "Near Brithir, North Wales," where Mr. Hughes Stanton has treated in masterly manner both his foreground and the massed clouds drifting across a windy sky. In "Pool Estuary" Oliver Hall is himself again in his fine reserve and careful drawing: Moffat Lindler returns to Venice for his subject with success in two poetic visions, "Silver and Grey—Venice," and "Sunset—Venice"; and William T. Wood, good throughout, is at his best in his study of "Midnight." I noticed specially besides these E. T. Holding's admirable "Poole Harbour," Matthew Hale's "Sunset in Norway," and Cecil Hunt's "Arolla Valley."

The figure work this year, as mentioned above, is somewhat slight. Mrs. Allingham has sent a little portrait sketch of Thomas Carlyle, dating from 1878; Mrs. Laura Knight has what is really a tinted drawing, and a very clever one, of some holiday girls upon the cliffs, and one of those theatre studies behind the scenes to which she has lately given her attention; in "A Blow on the Downs" Arthur Hopkins shows a pretty drawing of a young girl in a white frock, and in the same genre, but yet weaker, is Constance Phillott's "Sleeping Maenad"—though the background is charmingly arranged. Far the best of the figure painting is Miss Brickdale's nymph who has just drawn her bow, with Cupid watching at her side: the figure of the girl, with her strong shapely limbs, is well drawn, and suggests the tension of the muscles as she has just shot off "The Arrow."

There is this year some interesting work from across the Tweed sent by E. A. Walton, R.S.A., who is an Honorary Member of this Society and President of the Royal Scottish Water Colours. His "Bull Rock" is a strong piece of work; though those who, like the present writer, have had some experience of angry bulls might prefer the rock without the accompanying animal. James Paterson, another member of the R.S.A., is excellent in his "Glenjaan," but at his best in his really poetic vision of "Moonrise, Glenluiart."

The Alpine Club Gallery has an exhibition of Modern Art, which opened the day before the Society of Water Colours, and which makes a good impression, all the works being in much the same key and method. William Rothenstein has here an interesting portrait of John Drinkwater, the well-known dramatist; but what I would call special attention to in this exhibition are this artist's landscapes. Fine in drawing is the building

in "The Old Barn at Iles Farm," and equally good in colour; but to my mind this is even excelled by the effect of clear light upon snow in Mr. Rothenstein's "Winter." Augustus John has several paintings here, among which I should pick out his portrait of W. B. Yeats and his "Elf Land," in which he seems to strike a new note, which is tender and charming. Excellent is Eric Kennington in his "Lovely Roses," every petal lovingly drawn; and Howard Somerville next to this has a portrait of "The Artist," reserved in colour and fine in quality. Max Gertler's treatment is very flat in his "Slade Student," the outline of the figure cut sharp against the background, even the high light of the pupil in the eyes toned out, and the sitter's smile (if it be so much) amiable but expressionless.

At Walker's Galleries Mr. Litten has just been showing some charming drawings, mostly of Rottingdean in Sussex, which was the home in later years of Sir Edward Burne-Jones, whose house appears here: they are really line drawings with a colour wash. This exhibition will be followed by the French landscapes of Gabriel Thompson. At the Hampstead Art Gallery E. M. Dickey's work has been followed by the paintings and sketches of Mr. Gregory Brown, with a change again for April.

Some interesting additions have been recently made to our national collection in Trafalgar Square. These include Constable's famous painting of "Salisbury Cathedral," which has been lent for a time by Lord Ashton of Hyde, and hung in Room XXII., between the same artist's "Cornfield" and "Cenotaph." In this wonderful painting the spire of the great Cathedral is seen emergent against the massed and threatening clouds; and in the foreground most happily placed is the cart and team of horses fording the stream. This work should not be missed by the lover of Constable's art: it is typical in his peculiar treatment of broken lights. In the corner of the same room is a delightful little oil study of trees in massed shadow against a pale blue sky, by that fine artist John Sell Cotman, recently acquired for the nation. The "Pamela" series—illustrating Richardson's story—in Room XXV., by Joseph Highmore (his dates 1697-1780), have something of Hogarth's narrative touch, and are purchased out of the Florence Fund. S. B.

## Art News of To-day.

Two sales of the first importance at Messrs. Christie, Manson and Woods in this month of April are the Greek and Roman antiquities of J. P. Heseltine on Tuesday, April 19, and the arms and armour, Early English oak and tapestries of the late Morgan S. Williams on Tuesday, April 26. Both these collections are of the first order, and we shall mention them fully later.

We are informed that Room V. of the National Gallery has been rehung with paintings of the Milanese School, including the famous "Madonna of the Rocks," by Leonardo da Vinci.

The renovation of the roof of St. Mary Abchurch in the City has permitted Sir James Thornhill's great painting in the dome to be adequately seen by the aid of 110 electric lamps with reflectors, projecting the light upwards. The subject here is the heavenly host praising God, David with his harp representing ancient music, and St. Cecilia, with her organ, the music of the Church. Thornhill decorated also the dome of St. Paul's and Greenwich Hospital.

The death at the end of last month of the famous French artist, Jean Paul Laurens, at the age of eighty-three, removes a great and leading figure from the art of France. Laurens was once considered by official French art as one of the innovators, and the persistent refusal of his work with that of others led to the creation, in 1863, of the Salon des Refusés, in which he exhibited beside Harpignies, Fantin Latour, Whistler, Manet, and Pissarro. One of Laurens' most typical later works was his "Honorius—Lower Empire," which, besides his fine drawing, showed his love of flame-like colour in the crimson-robed child emperor.



## Architectural Impressions in the Engadine.

To speak of architectural impressions in the Engadine seems, at first sight, very like a dissertation on "Snakes in Iceland"! But there are always crumbs of information to be picked up, even in unlikely places, by those who choose to keep their eyes open. In his "History of Modern Architecture," Fergusson airily dismisses Swiss architecture, in a final paragraph of the account of German architecture, by saying that although not a part of Germany, it is not worth while devoting a special chapter to a country that in three hundred years has produced but one building. This is a trifle sweeping to say the least, but there is not in Switzerland, and certainly not in the valley of the Engadine, a great deal of what is commonly rated as "architecture"; but there is, on the other hand, a good deal of simple, direct building, of a far from unpleasing character, building which has, indeed, a distinctive character and appeal of its own and, that perhaps is, strictly speaking, better entitled to the designation of "architecture" than much that is more pretentious.

The valley of the Engadine, with its lovely scenery, bracing air, and great altitude, has long been noted as a health resort, and in recent years has become famed for its winter sports, drawing votaries from all parts of the globe. It is barely forty years since a party of British and American tourists, visiting the Engadine in winter, and knowing Norway well, were astonished to find that winter sports were almost unknown, despite the wonderful suitability of the country and climate. They considered that if experts were brought from Norway to initiate sports, it would prove a wonderful success. They put their ideas before certain hotel proprietors, who took up the idea warmly and obtained the services of experts from Norway, with the result that not only did the natives take up the winter sports, but people were attracted from every quarter. To-day, not only the Engadine, but many other parts of Switzerland are almost uninterrupted settlements of hotels and pensions for the accommodation of patrons of the winter sports, bringing a great revenue into the country. From the time one leaves the main line of the railway at Chur, and starts on the electric light-railway that slowly, and for three and a-half hours, ascends over bridge or viaduct, tunnel, or steep open grade, slowly winding its way along the mountain-sides until it reaches St. Moritz, 6,200 feet above sea-level, the beautiful valley is dotted every mile or so with a village, or rather settlements of hotels; each, like the mediæval castle of old, surrounded by the humble dwellings of its retainers. Very picturesque are these villages or settlements. The larger towns lower down are almost too neat in their spotless cleanliness and formality. These settlements have the saving virtue of a little less rigidity, and more play of contrast. The red tiled roofs, the smooth cream walls, the bright-green shutters, the dazzling white of the snow, the bronze of the firs in their winter garb, and above all, the radiant gleams of a brilliant sun and azure sky, make up an unforgettable picture.

In winter-time, and except in the brief summer, there is little vegetation—some hay is saved, and a few vegetables grown—otherwise everything has to be brought from a distance.

The hotels being the dominant features of the villages, indeed the *raison d'être*, set the keynote of design. Being nearly all comparatively large structures, they generally run to a considerable number of storeys, and, being built as a rule on a sharp declivity, there are ordinarily upper and lower ground storeys. What strikes one most forcibly is the scarcity of the traditional Swiss chalet type. This style of wooden house, so associated with one's conception of Switzerland, is comparatively rare in the Engadine. Interiorly the large houses and hotels are well planned and most comfortable. The furnishing is more or less in the German fashion. Central heating is invariable. The taste in colour decoration is occasion-

ally a trifle bizarre, but often, in the handling of strong colour, very effective and rich in appearance.

The bulk of the more important buildings, being built for hotels, have all the appearance of hotels, and would never be mistaken for anything else. The building materials seem to have suggested a simple, logical, and, on the whole, dignified treatment of a purely utilitarian problem—stone and concrete are the chief building materials, brick is little used in the higher regions, although tiles, particularly red pan-tiles, are extensively manufactured. There appears to be three kinds of stone: a grey granite, mostly used for steps, landings or quoins; a grey stone of very pleasing colour used for rubble walling, and a porous sponge-like stone. Cutstone, in the form of chiselled dressings, is conspicuous by its absence. Excellent and most intelligently handled rubble masonry is common, but is sparingly used; one sees quoins, and piers, or perhaps the entire lower storey done in rubble stone, but seldom or never the whole building. The remainder is smooth stuccoed, and coloured cream or white. More commonly the entire building is stuccoed, in which medium the artificer seems most expert in producing a satisfactory surface. The absence of mouldings is most striking, and it is logical. In this stucco finish and in the clear atmosphere, heavy mouldings are unnecessary—even a moulded cornice is rare. The usual finish is a wide flat cornice formed of the projection of the eaves. The fenestration is generally admirably arranged and proportioned, and the windows are without architraves or other enrichments, though now and again one finds committed the solecism of *painting on* in white an architrave or cornice! Owing to the great strength of the sun's rays, even in winter, external lowered shutters are as necessary as in a tropical country. Invariably painted a soft, but gay green, with the well-proportioned openings, the smooth stucco, and the wide eaves, a satisfactory result, free from vulgarity or ostentation, and logical in its application, is obtained. The few attempts at more pretentious architecture are unsatisfactory and crude as a rule. Flat roofs are common, and so, in spite of the heavy snowfall, are flatpitched roofs, though more usually a sharp pitch is found. The roof coverings are either of local red pan-tiles or of heavy stone flag-slates, not unlike those of the Cotswolds or Westmorland, but more akin in varied colour to the old Delabole Cornish slates, which give a very picturesque result. Occasionally the thin manufactured slates of commerce are met with. Generally speaking, all the building crafts seem well and intelligently handled. Internal joinery is excellent, though simple, and extensive use is made of the local home-grown timbers for panelling and general purposes; simplicity and absence of vulgarity is marked.

In ironwork the craftsmanship is exceptionally good; one often finds admirable examples of local hand-smithing of very delicate workmanship. Quoins of pebble, stuck on, are met with too, and coarse pebble-dash, the pebbles stuck in by hand. The combination of rubble masonry and stucco is often most effective. The locks and other hardware are simple and good.

A notable feature is the fine school buildings, even in the smallest villages.

An extensive industry in cast concrete in the form of cast drain pipes and concrete bricks is carried on in many places. Timber is used extensively for fuel.

The churches are, for the most part, uninteresting, and generally stuccoed and very plain, but one or two small modern churches in rubble masonry, in a Romanesque reminiscent of Rhenish Germany and of quite good design, were noted.

The windows are invariably of the casement type, and fitted with temporary outside frames, removed in the summer. As these are only attached to the outer frames by a couple of small hooks, a word of caution is not amiss: The writer, in endeavouring to open one of these outer sashes secured by a couple of light hooks, suddenly precipitated the whole contrivance on to the terrace beneath, from a height of forty or fifty feet.



## St. Mary Abchurch.

REFERENCE has been made by the Press to the so-called "discovery" of the painting in the dome of St. Mary Abchurch. Though it was common knowledge that Sir James Thornhill had undertaken the decoration of the dome, it is, nevertheless, a fact that this wonderful painting has remained in obscurity since Sir Christopher Wren completed the erection of the Church in 1686. It was only last week that the public were able to see clearly, for the first time, this splendid masterpiece of the great painter.

Fortunately, this building has escaped the threat of demolition which hangs over so many of our City churches, though an equally disastrous catastrophe has only lately been averted.

The architects, Messrs. George Hubbard & Son, who were entrusted with the work of restoration, were able to replace certain main roof timbers, thereby securing the dome from imminent danger of collapse.

In the course of this work, an opportunity of obtaining a closer inspection of the painting was afforded, which led to the wise decision of the Rector and Wardens to allow the old system of imperfect lighting to be superseded by one hundred and ten electric lights and reflectors, which the architects have concealed behind the main cornice at the base of the dome. These are so arranged that a rich mellow light is dispersed equally over all parts of the painting, thus revealing an artistic work of the highest merit, which has hitherto been lost in the murky depths of a gloomy dome.

Sir James Thornhill, who was the father-in-law of Hogarth, was born in 1676, and imported from the Continent a certain allegorical style. He was much patronised by Queen Anne, who commissioned him to paint the cupola of St. Paul's at the rate of 40s. per square yard! Such notable buildings as Hampton Court, Greenwich Hospital and Blenheim Palace were all embellished by his brush.

In the lower part of the dome of St. Mary Abchurch, between the lucarne lights and beneath the painted cornice, are depicted the heavenly graces and virtues. The shells, which fill the spaces between, are executed with much skill and vigour.

Higher up is painted a winged cherubic choir, playing on manifold musical instruments, while others are adorning the sacred sign of Jehovah at the summit of the

dome. From this emanates an iridescence, tinging the clouds with soft light that seems to display the masterly ability with which the artist has treated the heavenly vault.

The Church situated in Abchurch Lane, nearly opposite Cannon Street Station, well repays the trouble of a visit, for there is concealed within its somewhat dull exterior, if not a heart of gold, a fine architectural example of the work of such masters as Wren, Grinling Gibbons, and Sir James Thornhill.

## New Books.

"Modern Paintings—I." The work of Laura and Harold Knight, with a foreword by Ernest G. Halton. 1921. "The Studio." 7s. 6d. per folio.

THIS volume, in folio size, upon the work of Laura and Harold Knight, with a "foreword" and eight colour plates, is the first volume of a series of folios containing reproductions in colour from pictures by modern painters; those following in the series upon the present volume being P. A. de Laszlo, L. Campbell Taylor, R.O.I., and Arnesby Brown, R.A. The object of this series, we are told, "is to place in the hands of discriminating picture-lovers faithful colour reproductions, on a scale considerably larger than those which appear in 'The Studio,' of interesting works by leading painters of the day"; and we are informed that these folios will be issued at intervals of about one month.

The idea is an excellent one, and the size selected gives scope for a very effective plate to appear. In his foreword in this volume Mr. Halton gives us a brief sketch of the life and work of Laura and Harold Knight, who were fellow-students at the Nottingham School of Art, and have since lived a good deal in Cornwall, first at Lamorna, and later at Newlyn. The plates given here from Harold Knight's work are excellent, both in the figures ("The Letter," and "At the Piano"), and the landscape of "Dogsmead Pool," of which Mr. Halton says, "it is a dignified composition treated with skill and commendable restraint." We cannot, however, say so much for the reproductions here from the art of Mrs. Laura Knight. As reproductions there is little fault to be found in "The Young Artists," "The Camp," or "Les Sylphides"; but we cannot help feeling that—in the case of such an exceptionally brilliant and versatile painter as Mrs. Knight, so modern in her whole outlook as well as her technique—where there were only four paintings to be reproduced a better and more representative selection of an artist who has often appeared in the pages of "The Studio" (an example is in the issue of only February last) might not only have been made, but made without any difficulty.

Excellent as these volumes are, both in idea and form, they are necessarily limited in colour illustrations; and this is just why—especially when the available plates have to be halved between two artists—selection becomes a matter of the very first importance.

S. B.

## Proposed Berks, Bucks, and Oxon Architectural Association.

FOR some time many architects in the three counties have felt that there should be a Berks, Bucks, and Oxon Architectural Association.

The Council of the Reading Society of Architects considered the matter at a recent meeting, and it was decided to invite all architects in the three counties to attend the next general meeting of the Reading Society of Architects to discuss the formation of such an Association.

This meeting will be held on Wednesday, April 6, at 3.30 p.m., at the Chamber of Commerce Meeting Room, No. 156 Friar Street, Reading.

Mr. MacAlister, the Secretary of the R.I.B.A., will be present, and explain the object and the best way of forming such an Association.



ST. MARY ABCHURCH.—A PORTION OF ONE OF THE DECAYED BEAMS.





ST. MARY ABCHURCH: VIEWS SHOWING THE PAINTING OF THE DOME BY SIR JAMES THORNHILL.



# Contemporary British Architecture and its Immediate Ancestry.\*—II.

By H. S. Goodhart-Rendel.

## II.—ECCLESIASTICAL ARCHITECTURE.

THIS digression on shams being now concluded, I will pass hastily to the second part of my subject, that of Ecclesiastical Architecture.

The various forms of Christian worship for which buildings are required may be divided conveniently, if not accurately, into two classes, the Catholic and the Protestant. Catholic worship is, as it were, centred in acts done at the altar. Protestant worship is not so concentrated, being rather a gathering together of believers for prayer and praise. Both are customarily supplemented by preaching: indeed, among Protestants the sermon is regarded as among the more important parts of the religious service. Each of these forms of worship has its appropriate type of building. And to these two the nineteenth century has added a third that which will do for either. The nineteenth century has also largely reproduced a fourth type which does well for neither nowadays, that of the much-divided church of the Middle Ages.

Catholic worship has to a certain extent crystallised since the time when men added aisle to aisle, and chantry to chapel, and money for church buildings has become harder to get; so that the cumulative experience of recent times guides us more along the lines of St. Charles Borromeo's treatise than along those of Pugin's recommendations: more, that is to say, in the direction of the ideal basilica than in that of the complex minster. Pugin fought the point with vigour, and produced a striking diagram to show that three little roofs would cover a broad ground-plan more cheaply than would one big one. This is perfectly true, but it means that you get three buildings instead of one, and that the outside ones, otherwise the aisles, are not well adapted for holding people who are occupied with what is being done in the middle one. I do not wish to labour this point nor to arouse controversy, in which no doubt it could be proved that for some purposes a manifold building is better than a simple one, I merely wish to point out that in Catholic worship, whether at Mass or Benediction, it is extremely important that every person in the congregation should be able to see the altar, and that since the High Altar is normally the altar used there should be space for what may be expected to be the ordinary congregation in the main body of the building, in full view of that altar. It would, therefore, seem that the large rectangular hall with the altar elevated at one end of it must be the germ of the ideal plan for the Catholic church; and that, although aisles *may* and chapels *will* probably be required, the seating accommodation of these should not be taken into account when estimating the normal capacity of the building.

In Protestant worship the altar or communion table is of less importance. Some denominations have it not, and in all Protestant sects I think I am right in saying that the communion table is of less frequent use than the pulpit. The Protestant place of worship seems to me, therefore, best made of that oldest of all forms for a congregation of people, the amphitheatre. It is surely ridiculous to treat a preacher differently from a lecturer, and nobody would think of building an aisled cruciform lecture theatre, therefore why should one build an aisled cruciform Protestant chapel? I would like to refer here to the magnificent building erected by Messrs. Paull and Bickerdike in Westminster Bridge Road, London, which now holds the congregations of the Rev. F. B. Meyer. Here is a most dignified amphitheatral structure, as fine as marble and stone and oak can make it, in which huge numbers can hear the preacher with ease both for himself and for them. This building, together with my second example, the King's Weigh House Chapel, by Waterhouse, which is oval plan, shows conclusively, I think, that a departure

from the customary church arrangement does not incur any loss of architectural dignity in a place of worship. I know of another example in London, St. George's Church at Tufnell Park, where an octagonal nave is attached to a short chancel arranged for the service of the Church of England. This picturesque building, designed by the late George Truefitt, suggests further developments of the auditorium which are tempting to the experimentalist. Two remarkable churches in the form of a short-armed Greek cross shall end my list. They are both by the same architect, the late Edward Buckton Lamb; one is dedicated to St. Martin and stands at Haverstock Hill, the other is at Addiscombe, in Surrey, and is dedicated to St. Mary Magdalene. Both are better models perhaps for a Protestant than for a Catholic building, although there is nothing in the form of either to unfit it for the rites of either worship.

I have now mentioned the types of building which may be described as definitely Catholic and definitely Protestant. When I referred to a third type as being a sort of *en tout cas* which will suit either, I was referring to what must, I think, be the best that we can hope for as yet in buildings erected for the Church of England. In the Church of England there are such wide diversities of practice in the conduct of worship that it is almost impossible for the architect to foresee what use or misuse of his building a change of incumbent may bring about. Certainly the strictly Protestant form of auditorium is not suitable, since that form is not easily fitted for Catholic worship. I think, therefore, that in designing churches for the Establishment it will be wise to take as our model the Catholic basilica, and so fit it as to be a good auditorium as well. During the last century a fashion for choirs consisting of men and boys seated between the altar and the people has become almost universal, but there are now signs that this is changing, and that the advantages of placing the singers and organ behind the people, either in a western gallery or on the floor, are becoming widely realised. In collegiate churches there is no doubt that the male choir, vested in surplices, is properly placed in a chancel, and no doubt many churches not collegiate will continue to imitate these arrangements. There is, however, no commanding authority for what I may call our sham choirs, composed not of scholars or religious but just of disguised parishioners and school-boys, and therefore the architect cannot be sure that this fashion, with no roots in antiquity, will not go as it has come. I therefore think that a defined chancel, perhaps screened off, is a mistake in any church not definitely collegiate, and I would suggest that the best model for the modern Church of England church is that in which the chancel, so called, is merely a continuation of the nave, with no structural division between the two.

My fourth and last class of church is that mediæval type of which almost every church of the Gothic revival is an example. Here again, where the church is collegiate the type may serve well enough, though I doubt whether open transepts will ever be found to be useful in these days, and if the transepts are to be filled up with organs and vestries and galleries and such lumber, I think we should do better to build proper organ chambers and vestries or sacristies, and not to give them a transeptal form. As for the style of churches, this is a vexed question. The Gothic revival led to an extraordinary degree of proficiency in its best exponents, and equally now that the church-building wave has ebbed we have an extraordinary lack of proficiency. The last giant of the Gothic movement has passed away this year in the person of that very great architect, Temple Moore. There are one or two names which will come to all your minds as those who can keep the Gothic torch burning, but I must confess that when I look at the buildings turned out by some of our famous church architects of to-day and compare them with the achievements of Pearson, of Bentley, of James Brooks, or of Bodley, I feel that

\* A paper read before the Manchester Society of Architects.



the style is indeed dying. Churches should be as nearly everlasting as we can make them. They should therefore be vaulted rather than timber-roofed wherever we can afford this, and I think that ferro-concrete will often enable us to vault a cheap church and will conduct us to a style which will certainly not be Gothic. Now my hope for the future of ecclesiastical architecture in England is that it may not attempt to revivify the expiring tradition of mediævalism, although I do not object to the language in which our new thoughts are clothed being a Gothic one. But I hope that all church buildings in future may be better adapted to our needs than those of the last century can be. The great Tractarian movement in the English Church was so archæological in its tendency that, instead of learning from the experience of the Roman Catholic Church, in all its Catholicising developments, it looked backwards over the ages for precedents. Consequently, not only did men build mediæval churches, but they used them mediævally. This appears now to be changing, and we may observe that in modern Church of England churches in which the worship is Catholic the tendency is to move along lines parallel with those along which the Roman Catholic Church has travelled during the last century. Protestant needs remain more or less unchanged. The average church building for the Establishment now must therefore be adapted for *all* ritual possibilities, whether for the Service of Benediction or for the Mission Prayer Meeting.

I do not think that I can consider Ecclesiastical Architecture here in any more detail than this, but I would like in concluding to point to the churches designed by Hawksmore in London as examples of interior design which very nearly fill the requirements of our ideal Established Church. I do not, of course, defend the galleries, pews, or mean sanctuary fittings in these buildings, which are merely the accidents of their date. I refer solely to the structures. Their style seems to me very noble. To some it will appeal as little as that of Wren's churches does to me. But there is a largeness, a dignity, and a suggestion of modernity about them which I think have seldom had justice done to them.

### III.—DOMESTIC ARCHITECTURE.

It is a comfort, perhaps, to pass from the consideration of two fields of design in which British architects have no great reason to be proud of their most recent achievements to one in which their supremacy is now unquestioned, that of Small Domestic Architecture. This supremacy has not always been ours, although the times in which our house builders have failed to build well coincide in the main with times of similar failure in other European countries. I do not think that the smaller houses in such Books of Designs as those of Gibbs, Ware, and the elder Adam show any superiority over those in De Neufforge, for example. In the early part of the nineteenth century, however, the rising prosperity of our commercial classes produced a demand for a type of small house, either cottage *orné* or villa (this last, a term of high compliment at the time), which many able practitioners were at hand to supply. These little houses exhibit a degree of convenience in their planning which, although far behind the requirements of to-day, is far in advance of that shown in the similar plans which can be found in Krafft and other French contemporary works. Their architectural style was cramped, perhaps, by the exaggerated simplicity imposed upon it by the taste of the time. Still, I think that the present-day architect can profit greatly by a study of such works as Papworth's *Rural Dwellings*, Plaw's *Sketches for Country Houses, Villas and Rural Dwellings*, Soane's *Sketches in Architecture*, and last, but very far from least, James Malton's *Essay on British Cottage Architecture*. These books reveal the existence, at the time of their publication, of a definite school of Domestic Design which had no parallel in any other country than in England. Malton's book, which I have so highly praised, was published in 1798, and is concerned chiefly with the style known then as Picturesque. It will therefore not

give any great satisfaction to those students who seek only in works of this period for Grecian details or those which we now agree to call Later Georgian. Nevertheless the engravings in this book show a remarkable perception of the possibilities of what we now describe as the Cottage style, and I think that they mark the birth of that quality in our architecture which has become a by-word to-day with the French, as "*le confort anglais*." As the 'thirties of the century gave way to the 'forties, taste changed, and a northern Italian style succeeded to the Greek. The text-books of this period are the two volumes of Parker's *Villa Rustica*, together with Hunt's rather shameless imitation thereof entitled *Architectura Campestre*. The cottage *orné*, in the hands of such men as Wyattville, C. J. Richardson, H. Kendall, junr., and, I grieve to add, Decimus Burton, became very rampant at this date. Nash's castellated mansions also served as a model for many miniature reproductions, and Swiss cottages had their imitators, so that by the accession of Queen Victoria complete chaos appears to have been reached. The volume of designs published in 1833 by the architect of the old Town Hall here, Francis Goodwin, is a very fair mirror of the time. In this most interesting work, the Grecian, the Castellated Gothic, the Cottage Gothic, the Italian and the Moresque are mingled with admirable impartiality, sometimes even in one design. This welter of styles continued for about ten years, at the end of which time the Grecian, the Castellated Gothic and the Moresque fell out, leaving the Italian, the Cottage Gothic, and a new arrival, the Parsonage Gothic, in possession of the field. During all this time I think that we may say that if we did badly other nations did worse, and it is certain that our plans, although still far from convenient as convenience is now reckoned, were superior to those of contemporary continental houses. Superior in comfort that is to say, for in balance and proportion of parts they do not possess very much merit. Architecture is so much a matter of fashion in all those small buildings in which fancy may fairly take the place of rule, that I think we shall be wise in moderating the severity of the judgment which we are tempted to-day to pass on the work of this date. French smaller domestic architecture stands now in the main where English did fifty years ago, and I doubt if we are prudent in overprizing what the most artistically gifted people in Europe have not thought it worth while to acquire. I say this by way of preface to the consideration of that remarkable movement which began, I suppose, with the building of William Morris's house near Bexley by Philip Webb in 1859. We are apt to think this movement of supreme importance, and to compare the intimate and charming work of to-day with that of fifty years ago in a spirit of over-great vainglory. Certainly we now can do many little things very exquisitely, but it is questionable if this power has not been acquired by diverting too much attention from great things to small. You remember the remark about too great skill at billiards being a sign of a mispent youth? Well, for thirty years, while the French have been refining and developing their noble idiom of formal architecture, we have been pre-occupied with minor details of handicraft. We both have our rewards.

But to resume our lightning excursion through history—the movement inaugurated by Philip Webb was furthered by many sensitive and poetical designers, among whom I may particularly mention E. W. Godwin, W. E. Nesfield, Thomas Garner, Basil Champneys, and George Devey. Other even better known names will occur to you. The greatest of them all I have reserved for separate mention, that of Norman Shaw, to whose credit the greater part of that most typical of all productions of the time, Bedford Park, is due. Contemporaneously with this new movement, architects like Waterhouse, Teulon, Salvin, George Somers, Clarke, John Douglas, and others remained in the main faithful to a Gothic tradition little infected by the Queen Anne.



It is almost impossible fairly to judge the condition of domestic architecture in England, say, in the year 1880. Most of the men whom I have just mentioned were still at work and were extremely proficient in uniting the convenient with the picturesque. The plans of the houses of this period are indeed commonly quite up to the standard of to-day in every provision for domestic comfort, save only that bath-rooms were few and far between. Architecturally, to us, the greater number of them appear as no plans at all. Those of Devey, for example, although reputed as among the most convenient of his time, appear to us incredibly haphazard and malformed. Waterhouse in planning could do no wrong, but his domestic style is to us unpleasantly municipal. Norman Shaw's plans have the merit, if merit it be, of giving the impression of mediæval plans ingeniously coaxed up to date, and lend themselves remarkably well to the contrivance of picturesque elevations.

And yet the reaction from this school which followed in the 'nineties was not towards architectural planning. It was rather towards a sort of elaborate baldness in design. This curious movement can best be studied in the pages of the "Studio," where will be found fervent exhortations to the art of architecture to strip off all its garments and ride through the streets like Lady Godiva for the common weal. The simplicity which was urged upon us by the professors of the new cult, a simplicity which claimed to be exaltedly utilitarian, was not a real one. You had to learn the trick of it as you had to learn the trick of Norman Shaw "picturesque." There was a mysterious ritual of round windows, sloping buttresses and water-butts into which initiation was necessary before one could dare to practise the new style.

Well, that is all dead, and what are we come to now? Chiefly, I fear, to a preoccupation with that recently discovered faculty, "sympathetic handling of texture," combined with just as irrational a practice of forcing symmetry as yesterday's practice of forcing irregularity. In the spirit of playfulness it may be justifiable enough in a small cottage to make of a summer-house and a garage twin pavilions flanking the main mass, but if done seriously this sort of thing very soon becomes ridiculous. So does the habit of gathering chimney flues from all quarters of the globe in order to bring them out of the roof in one huge central stack.

I will not labour this point further, but will bring my already long talk to a close with a few remarks on what I consider the proper importance of our modern fetishes, varied texture and broken colour. I do not think that it is true to say that the eighteenth century was indifferent to colour and texture in architecture. On the contrary, I think that just as decided views on these matters were held at that time as in our own, so that the subject is not a new one, although opinions upon it have changed. The old-fashioned specification which requires that bricks should be perfectly true and of a uniform colour, that slates should preferably be all of a size, that mouldings run in plaster should be sharp, and that everything that *could* be sand-papered *should* be sand-papered is probably a direct descendant of the specifications prepared in the offices of such gentlemen as Sir William Chambers and Sir Robert Taylor. Nowadays we specify that everything that *can* be done haphazard *shall* be done haphazard. Within limits it is all a matter of taste, and the present taste is for rough surfaces and soft outlines. I remember that in an admirable essay by Mr. Barry Pain there is a comment upon a similar change of taste in what is called artistic photography. What an advance there must be in art, he observes, if what would certainly ten years before have been called "landscape out of focus and badly fogged," is now called "When the mists creep down the hills." The passion, however, for the thumb-mark of the British workman is a fairly recent one. It is immaterial to architecture and does little harm. It began in the days of the romantic revival, when church architects discovered that Portland stone ashlar was less suitable for London churches than Kentish rag.

If the design of a building is right, it will take a lot

of bad colour and texture to spoil it, and I think that in these we shall not lose our souls by following the fashions of our time if public taste so compels us. The only aesthetic rule involved in our choice of building materials and methods of workmanship is that these must not be finer than the design which they embody. A picturesque cottage would not be suitably built in Pen-telicon marble, for example. It matters much less however, if the materials and workmanship are a little ruder than they need be. A severe design may prove more digestible to the lay critic if it be invested in what are now felt to be the charms of broken surface and tint, and it will generally suffer as little as it will gain by the investiture. Therefore I should say that if your client chooses to pay for Dutch bricks, let him have Dutch bricks. If he choose to pay for hand work where machine work would do, let him have hand work. But do not over-estimate the importance of these things, and, above all, do not rely upon them to do your designing for you. The ultimate test of a design is whether it be pleasing in an outline drawing. I wonder how many buildings of our own time, or of those in the century preceding it, would bear that test?

## Correspondence.

### Licensed House Competition.

To the Editor of THE ARCHITECT.

SIR,—The critical review in your issue of 25th inst., accompanying the illustrations of the designs, took exception to two of the framed conditions, (a) position of entrance to the refreshment room, and (b) with regard to the stairs, and you appear to think that our design violated (a).

May we point out that competitors were not told to plan the entrance at the angle of the *two streets*? The exact wording runs: "This room . . . should front towards street A with entrance *at the angle of the Site* and there should be a second entrance from Street B (this may be from a vestibule giving access to main stair and Club Room)."

The angle of the site in which we planned our entrance is peculiar to Street A, and seeing that the second entrance necessarily fell near the angle shared by streets A and B, it seemed to us that our reading of the Instruction was reasonable and what was intended.

The conditions do not bar a second stair to the assembly room; in fact, by referring to a "main stair" a second stair would seem to have been expected by the framers of the conditions, and it is certainly necessary. In striving to secure a plan ideal in these and other directions our building has exceeded the cube which bare observance of the conditions demanded but which we in no other direction have transgressed.—Yours, &c.,

BLOUNT & WILLIAMSON.

5 Duke Street, Adelphi, London,  
March 29, 1921.

### Cut or Moulded Brickwork.

To the Editor of THE ARCHITECT.

SIR,—I am gathering material relative to cut and rubbed brickwork, and am anxious to find good examples not yet illustrated in architectural books. I am particularly desirous of finding elevations in the Ionic Order, where the capitals of columns or pilasters are of cut brick—not of stone, as was frequently the case. If any of your readers should know such a building or any other interesting example of cut or moulded brickwork, would he be so kind as to send me a postcard indicating the exact situation, the Order, or other description of work, and the approximate date of the building. This would be a great help, and I should be glad to acknowledge such assistance.—Yours, &c.,

NATHANIEL LLOYD.

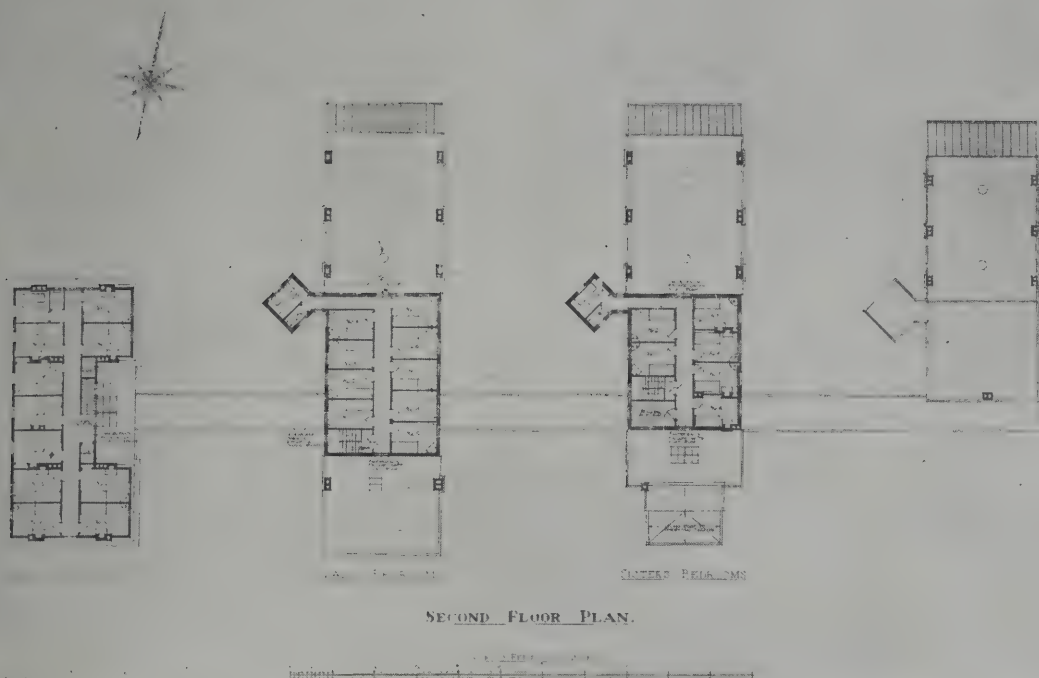
Great Dixter, Northiam, Sussex,  
March 26, 1921.

MR. ERNEST C. BEWLAY, F.R.I.B.A., has been elected an Associate of the Royal Birmingham Society of Artists.

THE Aberdeen Town Council has given general approval to a scheme by Mr. Bell, city electrical engineer, for the provision of increased generating and converting plant at the Ferryhill Electricity Works, at an estimated cost of £210,540. The works include the extension of the engine-room and switch chamber.



EAST HAM HOSPITAL



EAST HAM HOSPITAL COMPETITION.—DESIGN PLACED FIRST. MESSRS. MENNIE & SMITH, Architects.  
(See Inset Illustrations.)

## The Architectural Association.

an ordinary meeting of the Architectural Association was held at 34 Bedford Square, W.C. on Monday, March 21, 1921. Mr. G. Gilbert Scott, A.R.A., president, in the chair. The subject for discussion was

### "THE RISE OF THE GUILD OF BUILDERS."

Mr. Malcolm Sparkes, the Secretary of the Guild of Builders, in opening the discussion, said he was particularly glad to be present because at a time when the capitalist system of industrial control was breaking down it was important that any attempt to build up a new system should be examined by everybody. It was specially important that it should be examined by architects because the first steps in the Guild movement were being taken in the building industry. He believed the Guild of Builders had begun on the right foundations, that it had not made the mistakes that had been made before, though probably it had made its own mistakes. The biggest idea in the world to-day was the idea of industry as a self-governing public service. It was a world-wide tendency and the building industry appeared to be leading the way in many countries. This change of motive was the important thing—industry for service as opposed to industry for gain. In this country the miners, the railway men and the builders were racing for the same thing, and he believed the builders would win and get the system established on a scale large enough to see if it worked. Everyone present would agree that the purpose of industry was to supply the community with things it needed; the astounding thing was that industry had never yet been organised for that purpose. Up to now it had been organised to produce dividends. The Guild idea sets out to give service and not to get it. That was the thing which appealed. Compare it with the ordinary form of industry in which the control is in the hands of the shareholders and to get them dividends. The Guild idea is essentially to give service to the community; it is a self-governing team in which all sections pull together for one interest. The team spirit is the fundamental thing. It was impossible to decide who was the employer and who the employee. For instance, said Mr. Sparkes, though he signed cheques he was under the control of a

board elected by the workers. The Guild idea was capturing the trade-union movement all over the world, and was changing its direction. It was becoming immensely constructive. The building trades unions of England had led the way and got their machinery into action with contracts amounting to £3,000,000. One of the interesting things about the Guild of Builders was the way it had grown up from the rank and file. The Walthamstow Guild Committee was older than the London Committee which signed the contracts. The centre was the National Guild Committee which did not yet exist, though it will very shortly.

This National Committee will represent all the Trades Unions in the industry as also all other functional organisations of the trade. It would not be controlled by shareholders, but by the people who do the work. The National Committee will have the duties of supplying materials, arranging for insurance and credit, doing a great deal of research work and it will centralise everything that ought to be centralised. The National Committee would not build houses. The stock criticism was that the Guild of Builders would form a huge trust. But the old trust was a combine to obtain increased plunder; the new combine will be self-governing communities with labour in control and capital in subjection, that is to say capital would be hired at a fixed rate of interest. Their object was to secure for the service of the public the advantages of industrial combination or to get a big team organised for the service of the community. The Guild ought to buy its raw material all over the world, to deal with insurance, to run its own publicity, and so on. It was nothing if not scientific. After the National Committee came the Regional Boards or Committees. The London Committee was now actually a legal entity. Such a committee was a contractor, could sign contracts, and do everything a contractor does with the important exception that it could not supply labour for its jobs. This latter was done by the Area Committee as representing the Regional Committee. Each type of committee had its own functions. The Area Committees were represented on the Regional Committee, and the Regional Committees would be represented on the National Committee. Guild control is control by the rank and file. As instancing the new spirit Mr. Sparkes quoted the



following letter sent in his name, as general manager and secretary, to every man on joining the London Guild:—

DEAR COMRADE.—The Board of Directors extends to you the heartiest welcome upon your entry into Guild service. Together, we shall try to show that the control of industry by the people who do the work is the finest and most scientific form of industrial organisation that has ever been tried, far better than control by shareholders, by consumers, by municipalities, or by the State. We want you to understand that you are a part of a great self-governing team of organised public service, which intends to guarantee you against contingencies and asks you to "pull your weight." Guild control is control by the rank and file. You choose by your vote the representative of your own craft on the London Guild Committee and also the representative of your own Area Committee; and it is of the utmost importance that you should change your members the moment they cease to represent your views.

Although officially described as General Manager, I am in reality your spokesman, for I carry out the policy that you lay down. The whole thing is real, and if we all pull together we shall do an incalculable service, not only to our own community, but to the World. We are going to make industry splendid.

That final sentence "We are going to make industry splendid" was, declared Mr. Sparkes, typical of the whole idea. It was going to end the present scramble, and was the boldest and soundest thing done in industry. Eight months' experience had demonstrated that all the talk about the workers being unfit to control industry was bosh. The team was now beginning to put its feet into the ground and pull hard. The Board of Directors controlled the policy of the undertaking. The Board were prepared to trust their managers who were the spokesmen of the rank and file. That being so the machine moves quickly. When Lord Leverhulme stated recently "no business was ever created by a committee," he had overlooked the Guild committees. Labour under the Guild becomes the first charge on production and is not treated as a commodity like timber or bricks. Guildsmen would draw pay in good or bad weather whether at work or in reserve. Payment for holidays, sickness, &c., will be put into action at a very early date. Under no circumstances will the surplus be distributed as dividends. Their reserves would mainly be utilised for the improvement of the services, for many years it will be devoted almost entirely to improved equipment and research through the National Committee. The Guild system necessarily must produce, said Mr. Sparkes, the best possible craftsmanship. Architects were represented on the Board and possessed a vote. The whole question of the relationship of architects to the Board was very interesting. Architects formed part of the whole team which produced buildings. The Guild housing contract creates a triple alliance between the Guild and the Co-operative Wholesale Society (which supplied materials) and the Co-operative Insurance Society (which guaranteed the performance of the contract). The contract provided that the local authority should pay for the cost of the houses, plus £40 per house for lost time, &c., plus six per cent. for office expenses and plant. On a large contract that percentage had proved adequate. A clause gives the local authority power to close the contract. In the two big contracts now being carried out by the Guild of Builders (London) Limited at Walthamstow and Greenwich the estimated cost works out at under £1,000 per house with all Guild charges added and was considerably lower than the other tenders. The erection of single houses for private people may follow. One of their difficulties was in the matter of plant. The Co-operative Bank advance credit for municipal houses. But that would not be so easy for single contracts. The Guild did not want to give lump-sum tenders; it wanted in fact to be a public service with all its cards on the table. It did not want to keep a hidden reserve. If the building owner desired to have the risk taken off his shoulders this might be done later by his payment of a premium which would be put in a central pool. If the Guild made a saving the building owner would get it. Their contract had been very severely criticised by building trade employers mainly on the point

of the £40 per house for time lost. Employers say this will put an intolerable burden on the industry. Mr. Sparkes declared his own belief was that it would tend to reduce the cost because the men's fear of unemployment would be replaced by enthusiasm. The Guildsmen will not pull his weight under any other conditions. The contest was not so much a war of class as a battle of ideas. It was going to be possible to enrol the best men on the side of the best idea. The Guild did not work for money it worked for men. There are the opposing forces of youth and age, creation and acquisition, enthusiasm and fear.

Mr. A. Hull, bricklayer, said that after thoroughly studying the position of the working classes and the listening to Mr. Malcolm Sparkes, Mr. Hobson and Mr. Cole he became convinced that the Guild movement was correct. So he went back to Walthamstow and organised an area committee. They asked the Walthamstow Urban District Council if they might be allowed to tender. The authority said they would allot them fifty houses. The bigger scheme was for 400 houses. The Guild prices for the latter, however, were £100 lower per house than any of the builders. To-day there were 250 men working on that scheme. Personally, he had been in the building industry for twenty-five years, and he had never seen men working before with such enthusiasm as at Walthamstow. The Guild removed the dread of unemployment. He could remember once being sixteen heart-breaking weeks without a job, though he spared no possible effort to get one. Building workmen claim they had as much right to live as any other section of the community, providing they delivered the goods. Now they were organised for social service. Something was going to happen in the near future. The trades union were in a ferment and are wanting to do something revolutionary. They in Walthamstow were determined to make the Guild a success. Conditions in the past had a tendency to lead to scamping. The Guild movement stands for doing work thoroughly. The present system by which the builder was a capitalist was again a beautiful building, for he wanted to eliminate everything displeasing to the eye for the sake of profit. The Guild was out to make beautiful buildings. They had determined to end the present system and to put the Guild in its place. They were all cogs of the machine, whether bricklayers or architects. In Walthamstow they were resolved not to go back to the conditions of 1914 when men pulled each other back in their fight to get a job.

Mr. W. G. Newton, vice-president, in moving a vote of thanks to Mr. Malcolm Sparkes and Mr. Hull, said those present had been very much interested in hearing of this new form of dealing with industrial problems. It was extraordinary what a reserve fund there was in the willingness for service in people. Under the ideal service men will accomplish wonderful things. If it were possible to attempt to solve the industrial problem on the lines of using that service it would be a great achievement. The building trade was peculiarly appropriate for such an experiment. For one thing it hardly suffered from foreign competition; it was a home industry in every sense of the word. Those present were interested in the idea both as citizens and as artists. The desire to produce the finest thing appealed to them particularly. There was a certain danger of sameness and stereotyping of design if the ideals of the Guild became general. It will be difficult for their first technician to develop new forms of beauty. The great mass of the members will have grown used to producing certain types of houses, and might object to the trouble of picking up the new ideas. That position had occurred under the only previous Guild system—namely, in the days of Imperial Rome. The Romans never developed, but got a little bit worse as time went on.

Mr. T. L. Dale thought that, while everyone might be in sympathy with the movement, one could not be blind to its difficulties. The condition of the building artificers before the War was deplorable with their liability to dismissal at an hour's notice. Its moral effect was very considerable and existed to-day. In the Guild



## MODERN PLANT FOR DISPOSAL

*Surplus Mechanical and Chemical Plant, the property of Nobel Industries, Limited, is available for disposal. The list includes Steam, Gas & Oil Engines; Locomotives, Boilers, Air Compressors, Fans & Heaters, Pumps, Shafting, Pulleys and Weighing Machines. Also Buildings of Steel, Wood & Brick*

Descriptive Pamphlets will be sent with  
**FULL PARTICULARS  
ON APPLICATION**  
*Write or Telephone—Victoria 4299*

**NOBEL INDUSTRIES LTD.**  
PLANT SALES DEPARTMENT  
5 Palace Street, LONDON, S.W. 1



**“Bitumastic”**  
Regd Trade Mark

### Prevents Rust

and so lengthens the life of Corrugated Iron, Iron Railings, Steel and Iron Structures, etc. Renders Concrete waterproof and preserves wood.

It lasts longer, covers a greater area, and costs less than lead paints. Send a p.c. for full details.

**WAILES DOVE BITUMASTIC LTD.,**  
Newcastle-on-Tyne, London, Glasgow, Liverpool, Leeds, Cardiff, Hull, Manchester, Birmingham, Lowestoft, Dublin, etc.

Telephones in every office. Telegrams—"BITUMASTIC."

# “FIBRAD” Asphalt Fibrated

**FOR DAMPCOURSING,  
ROOFING  
AND WATERPROOFING**

In Rolls, 100 feet long, any width, for Damp-course, and Rolls, 216 square feet, for Roofing

Manufactured by a patented process which Toughens to the Maximum, is Durable, Pliable, and Fire-Resisting, this Material has no Felt Base to Decay.

*For Prices and Particulars apply:*

**SUPPLIERS:**  
**Joyce, Maule & Co.**  
28 VICTORIA STREET, S.W. 1.  
Telephone: VICTORIA 1547.

**SELLING AGENTS:**  
**Building Products Ltd.**  
44-46 KING'S ROAD, CHELSEA.  
Telephone: VICTORIA 2590



contract there was the big difficulty of arriving at cost. If it put an end to secrecy they would all be delighted. But, personally, he did not believe that would ever come about until that Last Day when there will be no secrets.

Mr. W. T. Benslyn said that he had known contractors who were good decent men. The spectre of unemployment had been faced in the past with stupendous courage. Unfortunately, the type of contractor has altered considerably; now he is a financier rather than a builder. The old type knew the trade and understood architects. The introduction of the cost-plus-profit system during the War had given the Guild their chance. But it involved many risks. The idea was all right so long as there existed plenty of work. Mediæval guilds broke down because they failed to keep abreast of new knowledge. It seemed possible that in the future, say in twenty years time, the tyranny of the guilds might prove worse than the tyranny of the individual builder.

Mr. A. H. Moberley thought that if the whole building industry were organised into one guild there would be great difficulties. Clearly unemployment arises because there are more people wanting to do jobs than there are jobs to do. How many people was the Guild going to admit? Another drawback was that the vote of the skilled man would carry no greater weight than that of the unskilled.

Mr. E. E. Lofting spoke of a client who recently called upon him with a wish to have a bungalow built by the Guild of Builders, but who did not seem to care what it looked like, so strong was his faith in the workmanship of the Guild. Unquestionably the very best way to get good work was to get it done by the happy man who can call his soul his own. The more one spoke of these things the more one spoke rank socialism.

Mr. G. Gilbert Scott, the president, described the difficulties of the scheme as enormous. These would be particularly great in the early stages when there were the old and the new systems side by side. The present system was rotten. The Guild was not, in his opinion, the right solution, but it was an honest attempt and ought to be encouraged. Above all it was a constructive suggestion. At Liverpool Cathedral the contractor was working on a schedule, so there was no inducement to scamp work. The contractor and his workmen are proud and interested in their job and were as fine a set of men as could be got anywhere.

Mr. Sparkes and Mr. Hull, having briefly replied to some of the points raised, the meeting terminated.

## Forthcoming Events.

*Monday, April 4.*—Royal Institute of British Architects.—Meeting at 9 Conduit Street, W. Paper by Sir Lawrence Weaver, K.B.E., F.S.A., entitled "The Land Settlement Building Work of the Ministry of Agriculture and Fisheries." 8.30 P.M.

*Tuesday, April 5.*—Liverpool Architectural Society.—Meeting at 13 Harrington Street. Annual General Meeting and President's Closing Address. 6 P.M.

—Institution of Civil Engineers.—Meeting at Great George Street, Westminster, S.W. 1. Paper by Mr. L. Hamilton Larmuth, A.M.Inst.C.E., entitled "Airship Sheds and their Erection." 5.30 P.M.

*Wednesday, April 6.*—Reading Society of Architects.—Meeting at 156 Friar Street, Reading. Discussion on formation of proposed Berks, Bucks, and Oxon Architectural Association. 3.30 P.M.

—Royal Archaeological Institute.—Meeting in the apartments of the Society of Antiquaries, Burlington House, W. Paper by Mr. Andrew Oliver entitled "Notes on the Destroyed London Monasteries and Churches." 4.30 P.M.

*Friday, April 8.*—London Society.—Meeting at 18 John Street, Adelphi, W.C. Paper by Miss Norah March, B.Sc. (Editor of "National Health"), entitled "London Development in Relation to Health." 4.30 P.M.

THE Rugeley Urban District Council, on the recommendation of an inspector of the Ministry of Health, have decided to erect further houses, and have accepted a tender of a local builder of £822 per house, which was less than the previous tenders.

## Light Castings for Buildings.

As part of a general investigation into the supplies and prices of building materials, a sectional committee appointed by the Standing Committee on the Investigation of Prices and Trusts under the Profiteering Acts 1915 and 1920, have conducted an enquiry regarding light castings (grates, stoves, mantels, registers, rainwater pipe baths, &c.), dealing also with the question whether prices are affected by the action of any trade combination.

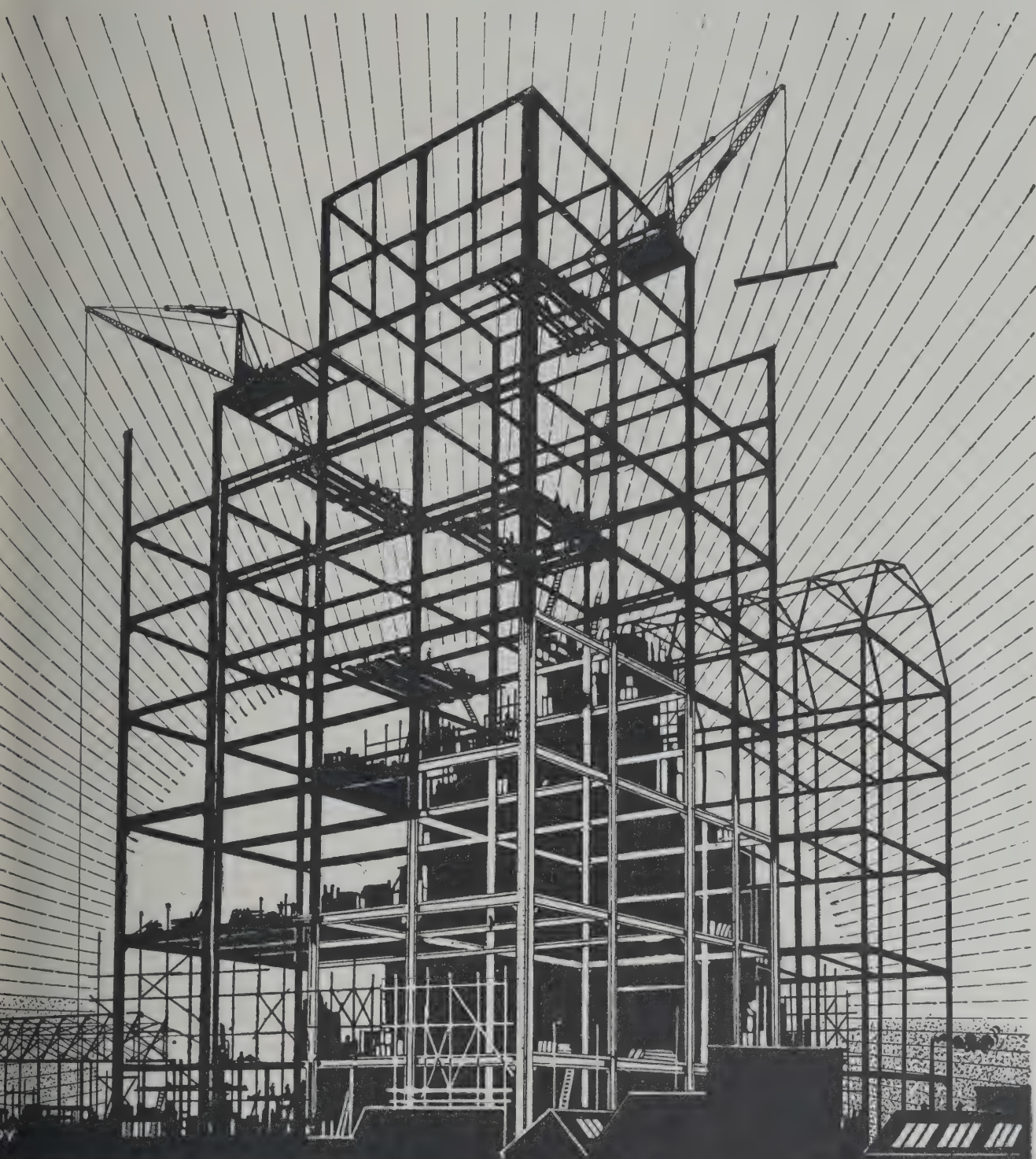
Their report, published last week as a White Paper, states that the present output of light castings is estimated at 250,000 tons per annum, of which about 200,000 tons consist of castings for houses. Scotland supplies roughly seventy per cent. of the output, and the Midlands twenty per cent. The Committee find that the industry, on both its producing and distributive sides, is effectively controlled by the National Light Castings Association and the Builders' Merchants' Central Committee.

In 1911 the National Light Castings Association, comprising about eighty of the leading ironfounders, was formed, and steps were immediately taken to regulate the output of light castings and to raise their price to such a purpose that within nine months of the formation of the association prices had been advanced by twenty-five per cent. By the end of 1912 the association represented ninety-five per cent. of the total output of the industry. This encouraged the Builders' Merchants' Alliance, co-operating jointly with the Ironmongers' Federated Association, to approach the N.L.C.A. with a proposal that the latter, besides fixing manufacturers' prices, should fix the minimum prices at which the merchants and the ironmongers should sell to builders and to the general public, and that street trading between ironfounders and traders should cease. As a means of ensuring that the price-lists would be observed, they proposed a system of deferred rebate whereby any traders not conforming to the listed prices should be penalised. They further proposed that if the N.L.C.A. would refuse to give this deferred rebate to any distributors not conforming to N.L.C.A. prices, they would in turn pledge themselves not to buy light castings from any ironfounders except such as were members of the N.L.C.A. After negotiation an agreement was arrived at, but a small group of merchants, including one or two of the largest in the kingdom, refused to subscribe to the arrangement, on the ground that the margin of profit allowed was not sufficient to cover merchants' ordinary working costs.

From that time down to the present these merchants have not subscribed to the N.L.C.A. agreement, and they have handled any N.L.C.A. goods they have received without any deferred rebate in respect of them. Under the pooling arrangement each member of the association on joining had to declare in confidence to the secretary the amount of his output in the three years prior to his joining the association. From the figures so furnished the average annual aggregate output of all the members of the association was ascertained, as also the percentage of the total done by each member. To each member was given a percentage figure which represented his quota of the industry. The scheme provides that if any member does more trade in any year than represents his pre-association percentage of the total trade, he shall pay into a "pool" 7½ per cent. of the amount by which his sales exceed his quota. On the other hand any manufacturer who does less than his quota draws from the pool 7½ per cent. of the amount by which his sales fall below his quota. The export trade only is exempted from pool payment. The arrangement the Committee regards as a drag upon expansion and improvement. The pool is now a source of weakness rather than of strength even to the association, and in the interests of the nation as a whole we are convinced that the pooling system must be deleterious in its effects.

Since 1913, continues the report, the N.L.C.A. has controlled the price of light castings by fixing the price below which they should not be sold to the ultimate purchaser, allowing discounts on an agreed scale to various middlemen through which they may pass. Besides





# EDPATH BROWN & CO. LTD

## CONSTRUCTIONAL ENGINEERS

LONDON Riverside Works, East Greenwich S.E.	MANCHESTER Trafford Park.	EDINBURGH St Andrew Steel Works.	GLASGOW Pinkston. Office 19, Waterloo St
BIRMINGHAM Office: 47, Temple Row.	NEWCASTLE-ON-TYNE Milburn House.		
London City Office:- 3, LAURENCE POUNTNEY HILL E.C.4			



this the Building Materials Central Committee, representative of all builders' merchants carrying stocks of hardware, fixes the price at which hardware goods, including of course light castings, should be sold retail by the merchants. In the case of rough goods the margin of profit is greater than in the case of the N.L.C.A., but this does not infringe the agreement with the N.L.C.A., which is concerned solely with preventing sales below its standard price. The B.M.C.C. margin of profit varies from  $7\frac{1}{2}$  per cent. to  $33\frac{1}{4}$  per cent. This, the Committee think, is not unreasonable.

The following is a summary of the Committee's further findings:—

"By a system of deferred rebates, conditional upon exclusive dealing and strict conformity to the price-list, the N.L.C.A. binds almost the whole of the distributing trade, reinforces its control over prices and makes it difficult for any existing or would-be competitor outside the association to market his goods. We are of opinion that the giving of deferred rebates on condition of price maintenance and exclusive dealing should cease.

"The present output of light castings would seem to be sufficient for rather less than 4,000 houses per month. In proportion as that rate of house completion is exceeded the output of light castings will need to be increased, and more skilled moulders will be required. In so far as the association is promoting the introduction of improved methods and equipment it is assisting output; but the effect of its pooling arrangement is to restrict output.

"The average increase in the price of light castings used in house construction between July 1914 and July 1920, was about 284 per cent. This is almost entirely attributable to increases in the cost of raw material and labour, which rose during the period approximately as follows:—Pig-iron 336 per cent., coke 243 per cent., skilled wages 227 per cent., unskilled wages 376 per cent." (taking into account the reduced number of working hours).

"The minimum prices fixed by the N.L.C.A. since the Armistice show a profit which cannot be considered as unreasonable. The discounts allowed afford a fair and reasonable margin to the distributor. The price-list issued by the Builders' Merchants' Central Committee for goods sold 'over the counter,' though showing in the case of rough goods an increase on the association standard list, represents a gross average trading margin of twenty-one per cent. over the whole range of goods. We regard this percentage as not unreasonable for goods of this nature sold from stock.

"The arrangements made between the N.L.C.A. and the Department of Building Material Supplies as regards price and standardisation in manufacture we regard as satisfactory. They afford the manufacturers a profit that is ample but not unreasonable. Under this arrangement light castings for housing schemes are obtainable, principally as a result of economies in distribution, at prices substantially lower than would otherwise be possible.

"The N.L.C.A. has during the last two years engaged in certain activities designed to raise the level of efficiency and lower the costs of production throughout the industry. In our view these activities do not at present adequately balance the restrictive influence of the association, and there is no guarantee that the results of improved efficiency would reach the public in the shape of lower prices.

"By reason of transport costs and the agreement between the N.L.C.A. and the distributing trade, foreign competition cannot be relied upon as a safeguard for the public against excessive prices. We are of opinion that the powers of an association which wields such monopolistic control over an industry are so open to abuse as to make it a menace to the community, and we urge that such combinations should be brought under the surveillance of some Department of State on the lines of the recommendations contained in the report, dated April 24, 1919, of the Committee on Trusts."

The Committee pay tribute to the invaluable service rendered by the N.L.C.A. to the Government during the war in the organisation of munition production, adding:

"We do not doubt that from time to time during the war and post-war period the prices of light castings would have risen far higher but for the control exercised by the association; we think the association is alive at present to the fact that its best policy is one of moderation; we are fully sensible of the value of the activities which the association is now developing in the matter of technical education, research, uniform costing, standardisation, &c. and we appreciate the willingness with which it has entered into arrangements for the supply of light castings for housing schemes on a cost accountancy basis."

## Housing News.

THE Llandrindod Wells Urban District Council, after considering four tenders for the erection of fourteen houses the first of a proposed batch of twenty-six under the Council's scheme, provisionally accepted that of Mr. J. I. Hopton (Llandrindod Wells). The tender was as follows:—A type, £1,646 per pair; B 4 type, £1,956 per pair; B type, £1,895 per pair. The total cost of the fourteen houses, the scheme is approved by the Regional Committee, will be £13,038.

THE Sites and Buildings Sub-Committee of the Birmingham Education Committee have reported that the progress of building operations at Erdington, Saltley, Yardley Wood, and also on the Pineapple Farm and Billesley Farm estates will necessitate the provision of further school accommodation at an early date. The proposals include the transfer of the temporary school in Ryland Road, Erdington, to a new building to be erected in Kingsbury Road, the Ryland Road school affording accommodation for 41 additional places; the erection of a new school for 800 children in Nansen Road, Saltley; the enlargement of the existing Council school at Yardley Wood, providing for 141 extra places; the erection of a Council school for 81 children on a site to be purchased adjoining the estate at Pineapple Farm; and a new Council school for 800 children on the Billesley Farm estate.

## Trade Notes.

MESSRS. JOSEPH KAYE & SONS, LTD., Lock Works, Leeds, have received a renewal of the contract for supplying their patent oil cans and spouts to the British Navy.

MESSRS. ROBERT JENKINS & Co., LTD., of Rotherham have made the following reductions in the prices of Electric Combination with gas cooker:—Size 1, from £35 to £30; size 2, from £40 to £33; size 3, from £45 to £36. With electric oven the reductions are:—Size 1, from £40 to £35; size 2, from £45 to £38; size 3, from £50 to £42.

TO-DAY there is a tendency to revive the old-fashioned use of pottery in interior decoration. The methods used are many; perhaps the simplest is to have a dado rail fix round the room and to use artistic cottage wares in conjunction with a frieze. Mr. Norman W. Franks, of Chestow Place, Bayswater, W., the pioneer of leadless glass china, has on view at his establishment a wide selection of quaint and beautiful cottage pottery.

AMONG the manufacturers whose energy and inventiveness are producing good results in the building world may be mentioned Messrs. Joyce, Maule & Co., of Bank Building, Swansea, whose London office is at 28 Victoria Street, London, S.W. 1. A special material introduced by them is a roofing felt produced by a patented process by which a homogeneous mixture of pure asphalt and fibre is produced which has the qualities of toughness, pliability, durability, and fire-resisting. A fault of some roofing preparations of this kind is that the asphalt and fibre of which they are composed are not brought into intimate connection or "chemical combination"—to use an analogous phrase—but remain separate, and in these the asphalt is apt to cake off, leaving the groundwork of fibre unprotected. The duration of such materials cannot be depended on with certainty, and sometimes disappointment ensues. The roofing material sold by Messrs. Joyce, Maule & Co. is sold in rolls (216 feet in roll) 30 inches wide, with nails and cement for laying included. The same firm manufactures damp-course material made on similar lines, but thicker, stronger, and heavier. This can be cut in any widths from  $2\frac{1}{2}$  inches up to 30 inches and in lengths up to 100 feet. The most inexperienced builder using these excellent materials is bound to produce a good job, and from actual inspection and experience we have no hesitation in recommending our readers to adopt them.



## CONTENTS.

The Vital Issue . . . . .	PAGE 235	The Royal Institute of British Architects . . . . .	PAGE 242
Illustrations . . . . .	236	Forthcoming Events . . . . .	244
Notes and Comments . . . . .	236	The Case for Owners of Working-class Dwellings . . . . .	244
London Art Galleries . . . . .	237	Building Exhibition, Olympia . . . . .	245
Art News of To-day . . . . .	237	South Wales Institute of Architects . . . . .	249
Shrine at Sukkur Sinde (Illustrated) . . . . .	238	The Architects' Benevolent Society—Third List . . . . .	250
Edinburgh Architectural Association . . . . .	241	Acoustics as applied to Buildings . . . . .	252
"The Architect" Fifty Years Ago . . . . .	241	Greater Chepstow (Illustrated) . . . . .	256

## The Vital Issue.

ON the reshuffle of Cabinet appointments there is one change which may affect the building industry—the substitution of Sir Alfred Mond for Dr. Addison as Minister of Health. It is too early to say at present what this means, but we have very clear ideas of what it should not mean, both for the building industry and the country. Whatever may be the relative merits of the two men, there is no doubt that Sir Alfred Mond is a greater driving force—there is equally none that he has been instrumental in enlarging the bureaucratic activities of the Office of Works, which is now competing against architects and contractors alike—the former by designing housing schemes, the second by carrying them out at public expense by direct labour. We may very naturally ask whether the appointment of Sir Alfred Mond is merely the promotion of an abler man to an important Government Department, or the prelude to an attempt to relight the dying fires of State housing and to make a more successful assault on private enterprise.

In the era of the French Revolution a phrase was coined which bears on the present position of affairs here; that phrase was the "Will of the Nation." As Harold Cox stated in the "Sunday Times," two years ago it looked as if several of our greatest industries, including coal and railways, might become nationalised in the socialistic sense. The opposition to these tendencies did not arise from the Government itself but rather from the people; in other words, it is the "will of the nation" which has decreed that these things should not be, just as the "will of the nation" is opposed to the extension and continuance of State housing. The Coalition owes its existence and its strength, not to the fact that its actions as a whole inspire enthusiasm or secure conviction, but to the very general conviction that a split at the present time might secure the return of a Socialistic Labour Government, representing what is in all probability but a large minority vote. In other words, the Coalition is supported rather because it represents the lesser of two evils than because it represents a positive good. Many of us would otherwise give our allegiance to independent politicians whose views seem to be more in accordance with justice and are less governed by expediency; but if we did so we should obviously be selling the position to the enemy.

Now the "will of the nation" is clear on one point, which is that the results of the war have placed grievous burdens on its back, and it is in no humour to see these burdens increased in order that Government Departments may try new experiments at the cost of the over-burdened taxpayer or ratepayer. The majority of voters is quite determined on this point, and will support the Coalition if it will show that it recognises facts. Electoral campaigns and eloquence are unnecessary if the Government recognises this; they are quite useless if it does not. We remember a solicitor who was having

offices built for his firm, who told us he had a system in dealing with his architect. If the latter came to him with suggestions for an improvement in design, he asked him if it involved an extra. If his architect said "Yes," he told us he said he "did not want to consider it, whatever its merits might be." We quote this, for, rightly or wrongly, it exactly expresses the feelings of every man in this country who has little or much to lose, and we claim that the majority have something to lose.

What we have indicated as being the Government's strongest card is equally that of every one of its members. Sir Alfred Mond has in the immediate past shown himself as a skilful organiser of a department which has extended its functions beyond that which we hold the Office of Works was organised to carry out—the upkeep and necessary repairs of Government properties. His late department is now, as we have stated, competing with both architects and contractors in the field of their activities, but with the resources of the taxpayer behind it. He enters into a new and greater office—that of the department which takes the place of the Local Government Board. Will he, or will he not, in his advancement recognise what we claim to be the "will of the nation" that bureaucracy shall be limited? If he does, he will have an ample field for his energies in the organisation of a department which is necessary and should be of great service to the country. If he does not, despite his abilities, he is fighting against a greater force than one which can be governed by personal abilities or thoroughness. The very fact of his greatness or his ability may only accentuate his failure. And with it, like Samson, he will be helping to pull down the supports of the temple—the Coalition Government, which depends on the conviction of the average voter. For between a party which is pseudo-Labour and the Labour Party, the former will be always at a disadvantage, and one which will bring into existence a third body of independent voters, who may not be able to secure a majority but whose abstention may give organised Socialistic Labour its opportunity. These are times in which all sane men should stand together to fight a conspiracy largely supported by those whose loyalty to the country is in doubt.

Labour, better advised after the war, might have made a choice difficult: it has chosen in the coal trade, in building, and in other industries, to make the issue plain and simple. And the issue is this: that what a man sows that shall he reap; and no one of us has a right to doles and subsidies from the community, but simply to a fair and proper proportion of what our industry and skill can earn. If the miners in their madness cripple a vital industry, the whole community will suffer, but the greatest loss will fall on the miners themselves, and the Government will win the respect and gratitude of the whole community if they show themselves neither intimidated nor deflected from their course in a matter in which they have the support of the bulk of the community.



## Illustrations.

1 BUCKINGHAM STREET, WESTMINSTER. L. S. CROSBIE, F.R.I.B.A., Architect. (See page 241.)  
 TERRACE AND GARDEN HOUSE IN WESTGATE, LOUTH. L. S. CROSBIE, F.R.I.B.A., Architect. (See page 241.)  
 PROPOSED BLOCK OF FOUR SMALL HOUSES, MILL HILL, N.W. ROBERT P. OGLESBY, Architect.  
 "SHELL CORNER." From a Drawing by J. T. MACDONALD & SON. MESSRS. NORMAN & TREHEARNE, Architects.

## Notes and Comments.

## The Subsidy to Private Builders.

DR. ADDISON'S Housing Bill was rejected last season on the ground that it was an omnibus measure containing objectionable features of a far-reaching character and highly contentious in their nature. We were then promised that the subsidy clauses, to which no one objected, should be reintroduced as a separate Bill this session, and congratulated ourselves on the sweet reason of the solution. Now, however, we have another Housing Bill, which, if not an omnibus measure may be likened to a dog-cart one, and we may be told that we cannot have the subsidy unless we take the other ingredients of the Bill with it. What will happen to this measure now that the Ministry of Health has a new head we do not know. Will the "Minister without Portfolio" be allowed to shepherd his offspring through Parliament or will Sir Alfred Mond recall it and give us a new prescription of his own? We hope we have seen the last of Housing Bills, and should feel happier if the little subsidy measure could be reintroduced without doubtful companions, and if we knew that it would be the last of its tribe to pass through Parliament for some years to come.

## An Iniquitous Clause.

THE most objectionable feature in the new Housing Bill is the clause under which, if a house of the annual value of £50 in London or £40 outside and is untenanted for a period of more than three months, the house may be seized by the local authority for purposes of housing. It is true that twenty-one days' notice must be given and an order obtained from the Ministry of Health, but even with these safeguards the clause is an iniquitous and unjust one. We are told houses are wanted, and that people should be encouraged to build them; but what encouragement is it to the man who owns or builds if his property can be compulsorily seized under any circumstances? The principle might be applied to other necessities, and we might argue that bread and meat were wanted, and that therefore all bread and meat which remained in the shops at six o'clock in the evening should be seized by the local authority and distributed for what it might fetch on that day. Should we expect, under these circumstances, that bakers and butchers would try to supply the wants of the community? The only difference between Dr. Addison's proposal and that of Mr. Smillie, made at a Housing Conference in Scotland, is that Mr. Smillie favoured the seizure of great houses for the working classes, while he did not suggest that any payment should be made. This, however, is only a difference in degree, and both proposals are based on the principle that the community can override the rights of private ownership.

## An Architect-Speculator.

ACCORDING to a contemporary, Mr. Ospalak, whose name is not familiar to us, has acquired the Westminster Palace Hotel, which is to be reconstructed and fitted up as a modern office building, a feature of the scheme being a large auction mart on the premises. The building contains six acres of floor space, and occupies a site of one acre. Mr. Ospalak also contemplates the erection of a large block of flats at Millbank to meet the demand of officials connected with the Government Departments. The flats are to be built on the lines of those erected in Park Lane. Schemes in other parts of London contemplated by Mr. Ospalak are estimated to cost between four and five million pounds. Mr. Ospalak, who is not yet twenty-eight years old, won an art studentship when nine years old, and passed the Oxford Senior

Examination with first-class honours. He has still a little more to do, for there is the membership of the Royal Academy and the Presidency of the R.I.B.A., but Mr. Ospalak has time in his favour. Major Pawley has, it seems, a competitor in his chosen field of operations.

## The "Weekly Record" of the Housing and Town Planning Committee.

WE should give credit where credit is due, and, though we differ from Mr. Aldridge, we must give him full credit for his ability as a propagandist. If he stands for Parliament he will get in, and if he is a member he will remain in, for he can sail farther with less wind in his favour than anyone we know!

In the "Weekly Record" he makes use of the mining crisis, pointing out that much of it may be attributed to bad housing conditions in mining districts. Sir Hugh Bell and Sir Charles Dorman are, we are told, bright examples of exceptions to the rule that employers are "unable or unwilling to take remedial action." We are further informed that it is recognised by employers and colliery workmen alike that "the task of providing houses for miners under happier conditions can only be adequately fulfilled by Local Authorities acting in co-operation with the State." We should like to ask Mr. Aldridge why it is that a body of men receiving exceptionally high wages—when they are not on strike—should be unable to do something for themselves in the matter of housing? Why is it that such bodies of men are worse housed than a great body of clerical workers receiving far smaller incomes. Is it not that the one chooses to expend a larger proportion of his income in decent housing than the other, and is there any adequate reason why the State should make up the deficiency? We confess we see none, any more than why the State should come to the rescue of the clerical worker to help him to acquire some of the luxuries which the miner indulges in. But we can understand the timid and well-meaning citizen reading the honeyed words of the "Weekly Record," saying "a very good idea; let us do a little more housing and see if we cannot have peace." If Mr. Aldridge ever assumes armorial bearings may we suggest "a workman's cottage rampant rouge surrounded with housing-schemes gules. Motto: "Nil desperandum."

## The Architects' Benevolent Fund.

WE give to-day a third list of contributions and subscriptions to the Architects' Benevolent Fund, which, we are glad to note, is making steady progress, and which we trust will meet with further success, because there can be little doubt that many architects are worse and no better off than they were during the years of the war. Then, at least, many of them were able to secure remunerative employment in many branches of Government service if they were not actually serving. Now these channels of employment are stopped, while the acute labour unrest and the high price of building is stopping a great volume of work which would otherwise be put in hand. Man does not live on bread alone, and unfortunately architects cannot live on the proceeds of abortive schemes, and many projects which looked feasible and promising in the first days of peace have now faded into thin air. There is, too, the added difficulty caused by the fact that the links of many architects' practices have been utterly broken by the war, and in some cases men have practically to start anew, with the added disadvantage of responsibilities which did not burden them at the outset of their careers.







SCREENLESS PHOTO PROCESS, SPRAGUE-HAYCOCK (PRINTERS) LTD. 69 & 70, DEAN STREET, LONDON W.1.

1, BUCKINGHAM STREET, WESTMINSTER.

L. S. CROSBIE, F.R.I.B.A., ARCHITECT.





SCREENLESS PHOTO PROCESS, SPRAGUE HAYCOCK (PRINTERS) LTD 69 & 70 DEAN STREET, LONDON, W.1

TERRACE AND GARDEN HOUSE IN WESTGATE, LOUTH.

L. S. CROSBIE, F.R.I.B.A., ARCHITECT.









INNER HALL.

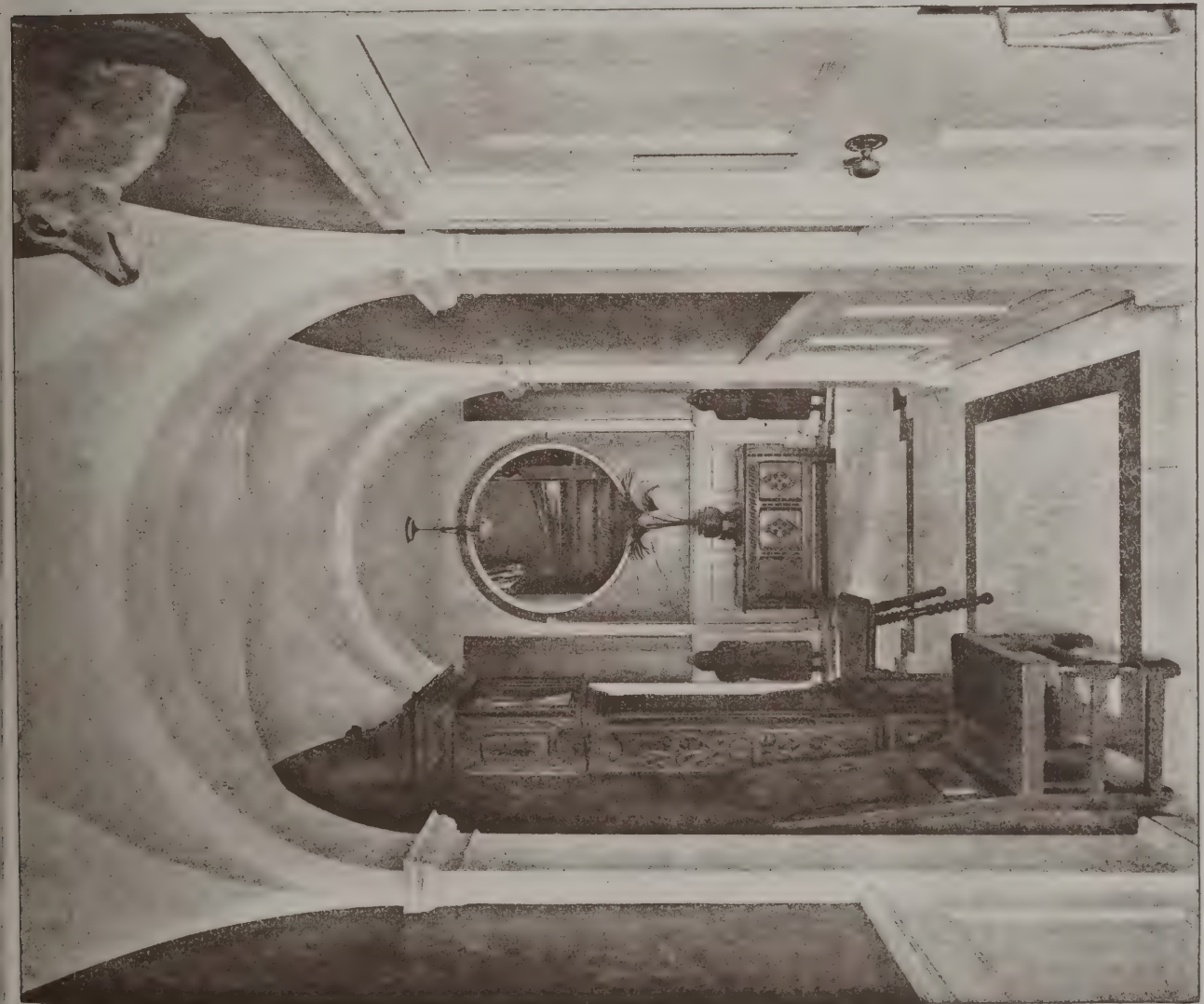


SCREENLESS PHOTO PROCESSED BY SPRAGUE HAYCOCK (PRINTED BY N. 69 & 70, D'AN STREET LONDON W.1).  
DRAWING ROOM.

1, BUCKINGHAM STREET, WESTMINSTER.

L. S. CROSBIE, F.R.I.B.A., ARCHITECT.





ENTRANCE HALL.



SCREENLESS PHOTO PROCESS, SPRAGUE HAYDOCK (PRINTERS) LTD 66 & 70 DEAN STREET, LONDON, W.

DINING ROOM MANTELPIECE FRAMING A MESTROVIC SCULPTURE.

1, BUCKINGHAM STREET, WESTMINSTER.

L. S. CROSBIE, F.R.I.B.A., ARCHITECT.



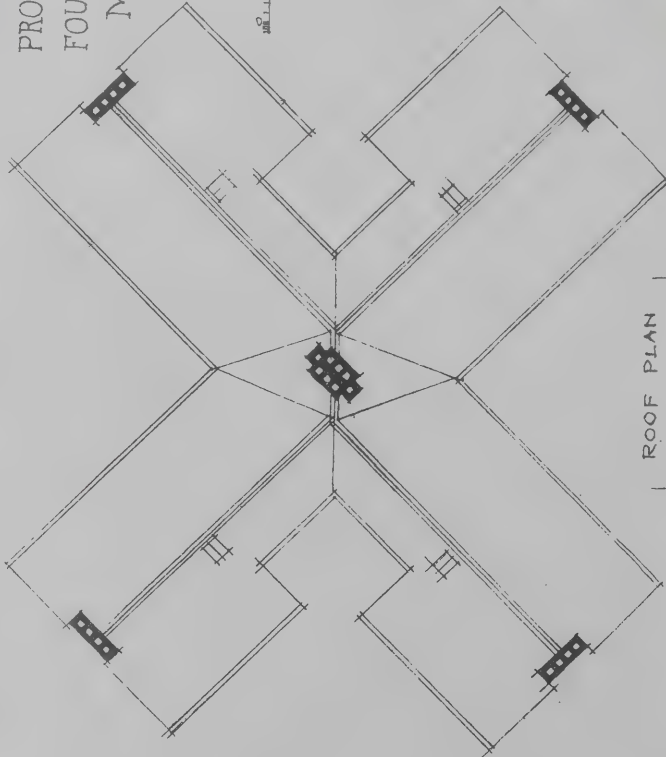




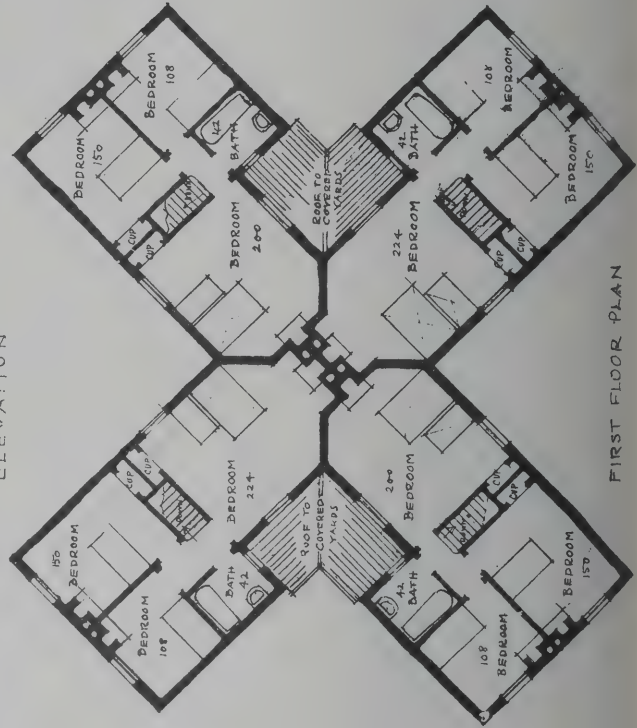
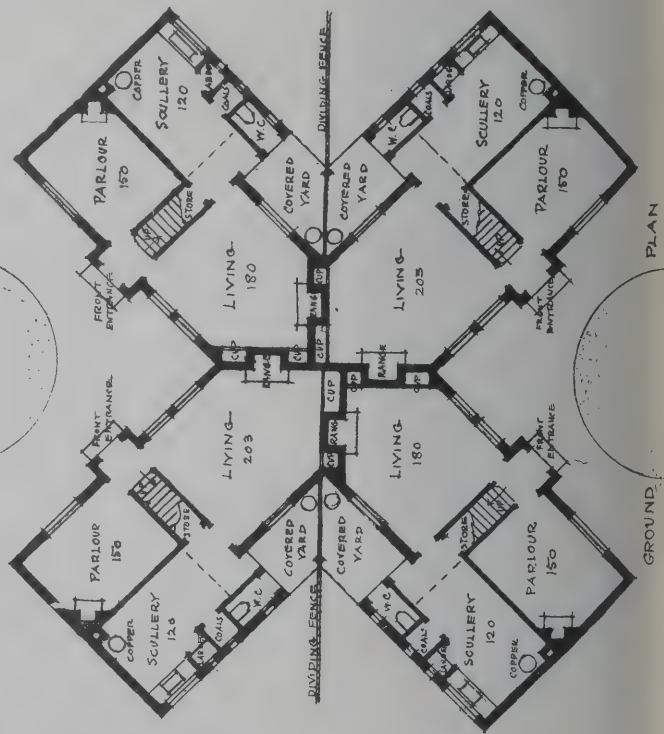
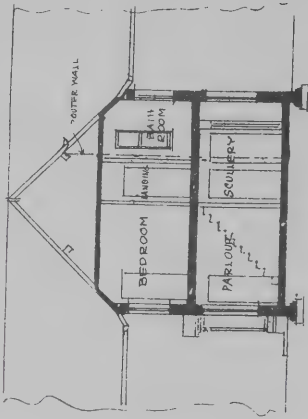
PROPOSED BLOCK OF  
FOUR SMALL HOUSES  
MILL HILL, N.W.

ROBERT P. GOLESBY ARCHT.  
26 EASTCASTLE STREET  
OXFORD CIRCUS, W.I.

SCALE OF FEET.  
0 10 20 30 40 50



SECTION.





THE ARCHITECT, APRIL 8th, 1921.



# SHELL CORNER

PHOTO-LITHO. SPRAGUE-HAYCOCK (PRINTERS) LTD. 69 & 70, DEAN STREET, LONDON, W.1.

AN EMPHATIC METHOD OF RENDERING AN ARCHITECTURAL SUBJECT FOR PURPOSES OF ILLUSTRATION.

"SHELL CORNER," FROM A DRAWING BY J. T. MACDONALD & SON.

MESSRS NORMAN & TREHEARNE, ARCHITECTS.





## London Art Galleries.

(All rights reserved.)

THE new arrangement of paintings of the Milanese School in Room V. of the National Gallery, which was opened to the public on March 24 last, and mentioned briefly in our Art News of the last issue, includes works of such interest that it claims a more detailed account than was there given. The only painting then mentioned was the famous "Madonna of the Rocks," by Leonardo da Vinci, which now occupies to good advantage the centre of the end wall, with on either side the beautiful upright figures of angels playing instruments of music by Ambrogio da Predis, who was Leonardo's contemporary, and to some extent assistant, at Milan. The theory has, in fact, been put forward that Ambrogio may have copied the centre panel also from the replica of this glorious painting in the Louvre Museum; while, on the other hand, both paintings have been claimed as the original, and personally I prefer our London example.

Ambrogio was, however, a fine painter of his time, and by his hand is the portrait head of a young man with long fair hair on the next wall to his angels; next to this is the full-length portrait of the Princess Bona of Savoy, who was so intimately connected with the story of Milan, by some unknown artist of the Milanese School. The Princess stands upright, seen in profile—it may be noted here that the profile likeness appears frequently in Milanese painting—clad in a rich Renaissance dress, though unluckily the surface paint has been much rubbed. This interesting work is a comparatively recent addition to our national collection, having been presented by Sir George Donaldson. On the same wall are now two beautiful and typical works—Luini's "Christ Among the Doctors" and Gaudenzio Ferrari's "Christ Rising from the Tomb."

Even more attractive, however, is the same artist's lovely "Annunciation," occupying the end wall facing the "Virgin of the Rocks." This painting possesses extraordinary charm. The angel has just swooped down before Mary, like some great bird arrested in his flight; and the Virgin herself, occupying a separate panel, is a figure of wonderful beauty, as she closes the book she had been just reading in the quiet room. Even details here, such as the design of her chair and of the book-rest or "prie-Dieu," are worth noting carefully. Macrino d'Alba, who appears on the same wall with two panels of male saints, is a master of Milanese art who is now taking the high place which he merits: like Borgognone, who is next to him here, he had worked for the Certosa of Pavia, that treasure-house of North Italian art, which the Dukes of Milan had filled with masterpieces of sculpture and painting. Ambrogio Borgognone had painted for this Carthusian monastery some of his finest creations, and, in fact, the building behind his "Virgin and Child" of our Gallery may be this Certosa in course of construction. To be admired above all here is his triptych with as its centre panel the "Virgin and Child," and the two side-wings showing "Christ Bearing His Cross" and the "Agony in the Garden."

Before leaving this Room V. of our Gallery I would wish to mention one painting of exceptional charm. I have spoken above of the love of profile by these Milanese painters of the Renaissance: one of their loveliest creations is the profile head of "Narcissus," facing the entrance in this room, by that great follower and friend of Leonardo, Boltraffio. Narcissus, who in classic myth loved his own image, is here a beautiful boy with long fair hair, in Renaissance dress, and crowned with leaves, the exquisite profile emerging against a delightful distant view of a winding river and mountains. Boltraffio loved these profile studies of beautiful youths, and there are examples in the Louvre and Uffizi. But that of our Gallery is unsurpassed in its own way.

At Walker's Galleries, in New Bond Street, was opened last week their fourth exhibition of pastoral water colours—that is to say, paintings in this medium

which deal directly, or sometimes less directly, with country life and scenes. Among those dealing directly I should class Tatton Winter's "By the River, Lambourn, Berks," and his "Eventide, a Picardy Pastoral." Thorne Waite's delightful "Mushroom Gatherers" here has something of the feeling for English country scenes of Birket Foster, with more breadth and less detail in the figures of the children and fields flooded with sunlight; then in figure subjects A. S. Hartrick's clever "Cotswold Shepherd Calling his Sheep in a Squall," and his "Pastoral Fantasy," consisting of a maiden with an elaborate crook in seventeenth-century costume, and a selection of sportive lambs appropriately scattered round. Pastoral, too, in their feeling are Katharine Cameron's charming flower studies, "The Evening Primrose" and "Wind-blown Tendrils," her excellent "Cocking Pond," and Gerald Ackermann's "Winter Moonrise" and "South Downs near Lancing"; though what there is of pastoral character in the same artist's "Old Durham" or Albert Goodwin's "Red Houses, Whitby"—both really fine water-colour paintings—is beyond my powers of analysis to ascertain.

In any case, we have here an admirable selection of modern English water-colours; and to those already selected I should add Martin Hardie's "Evening Shadows, Brittany"; Charles Harrington's "Estuary," well spaced and handled in his sky; Claud Hayes' delightful "Near Amberley, Sussex"; and the sense of space and rich colouring in Cecil Hunt's "Blue Backwater" and Percy Lancaster's "Evening on a Moor." Lastly, two subjects from the South, the "Forum Julii at Fréjus," looking very Italian and belonging to the Riviera in character, by Robert Little, and Russell Flint's "Early Spring in the Guadaramas," which gives the intense colour and clean atmosphere of the great plateau of Central Spain.

The little group of ladies exhibiting with the Countess of Darnley in the next room cannot be entirely classed as amateur, for some of Mrs. Edmeades' works here—her "Teston Bridge" and "Ragwort" are examples—come fully up to professional standard; and the Countess of Darnley, in her study of peach-blossom at her own beautiful home of Cobham Hall, handles a most difficult theme effectively. I picked out here among the numerous exhibits also Mrs. A. W. Booth's "Roses, Cobham Hall," and Miss H. K. Hall's "Salmon Look-out." The inner room contains oil sketches in France—"Morning at Les Andelys," "Breakers on Breton Coast," "Street in Arles" are among the best—by Gabriel Thompson. June next is fixed for the exhibition here of that fine Roman artist, Onorato Carlandi.

Very delicate and refined are the water-colour drawings, many of them of Dorking and Abingdon, by John Bacon, at the Brook Street Art Gallery till April 15, the colour very reserved ("Evening Quiet," "The Cottage Window"), the drawing good.

S. B.

## Art News of To-day.

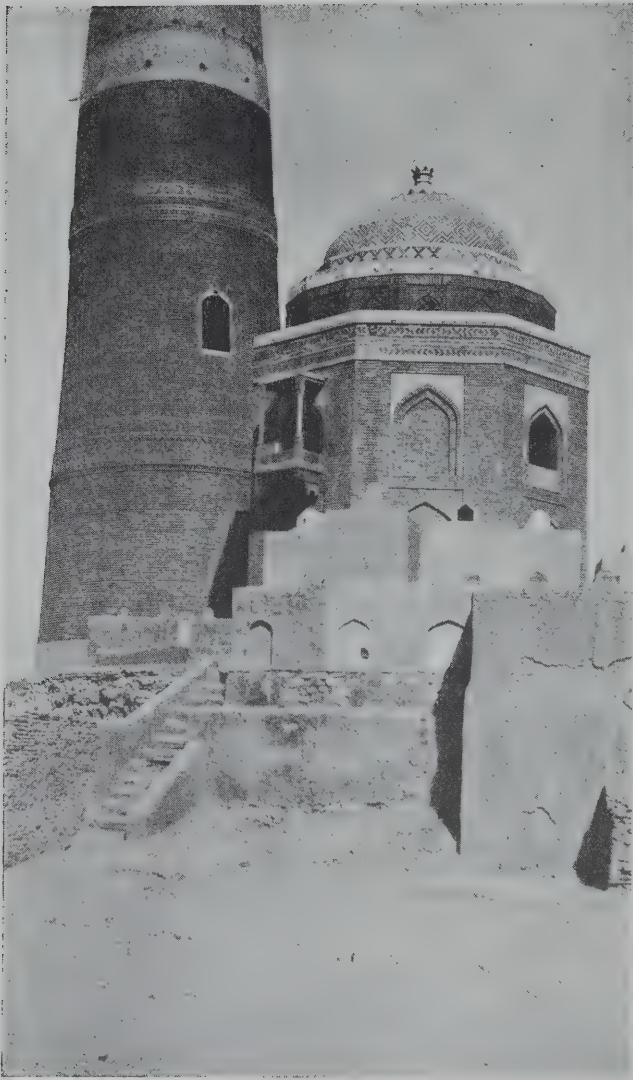
WE hear that Mr. Wyndham Lewis, who will shortly, as we are informed, appear as the editor of a new periodical, has decided to satisfy his admirers by holding his first important exhibition of pictures. Hitherto this artist seems to have confined his efforts to collections of drawings and studies, but we understand that on Saturday, April 9, he will exhibit his recent paintings at the Leicester Galleries, under the title of "Tyros and Portraits." This exhibition will be duly noticed in our columns.

From Cairo we hear that Miss Bridget Keir, whose successful exhibition of water-colour paintings of Venice and London last year at Walker's Galleries was noticed in these columns, has opened last month an exhibition of her works at the Semiramis Hotel in Cairo. The scenes here shown, besides London and the Lagoons of Venice, include the Temples of Luxor, the Pyramids in moonlight, and those "fairy-like boats floating down the Nile at the hour of dawn."



# A Shrine at Sukkur Sinde.

By Ernest F. Allnutt.



Base of Minaret and Elevation of Kiosk, showing Frieze and Window Spandrils enriched with coloured Encaustic Tiling.



Cupola of Kiosk, showing Encaustic Tile Decoration.

THE group of buildings shown in the accompanying photographs—forming together a much venerated shrine—present a remarkable contrast to the tombs that have gathered around them. The octagonal kiosk and the sturdy minaret, so strongly suggestive of a lighthouse,

represent the Mohammedan architecture of India in its more austere aspect, i.e., before Hindu influence had made itself seriously felt or had modified both in plan and decoration the style favoured by the highland invaders.

The monuments, on the other hand, show that beauty



Group of Tombs with Bases of Encaustic Tile-work





General View of the "Holy Enclosure,"



Open Cloister, showing Columns of Encaustic Brick and typical Mussulman Tombs, the shape being that of a closed pen box.

of design, that wealth of intricate arabesque and fineness of execution that one associates chiefly with the achievements of Jahangir and Shah Jahan. Upon the principal tombs, being those of saint and sage, has been lavished as much artistic skill as is wont to be the case the world over.

The minaret and kiosk appear to have been erected by Mir Masum Shah about 1607. The kiosk is very graceful in design, the cupola being covered with encaustic tiles

of beautiful colour. The interior is distinguished by a finely executed geometrical brick vault, relieved also with encaustic tiling. If the minaret hardly merits the term "graceful," there is at least no possibility of calling in question its stability.

But the main interest possessed by these structures concerns the material used. As well as many of the monuments and the supporting columns of the open cloister shown in the illustrations, both the minaret and



Base of Column showing Persian design, also Tomb finely worked in Persian Arabesque and Script—both built of Encaustic Brick.





Doorway of Minaret and Group of Tombs.



Recess at Head of Tomb [to contain Earthenware Lamp containing Oil, lit on Fridays as votive to the Dead.

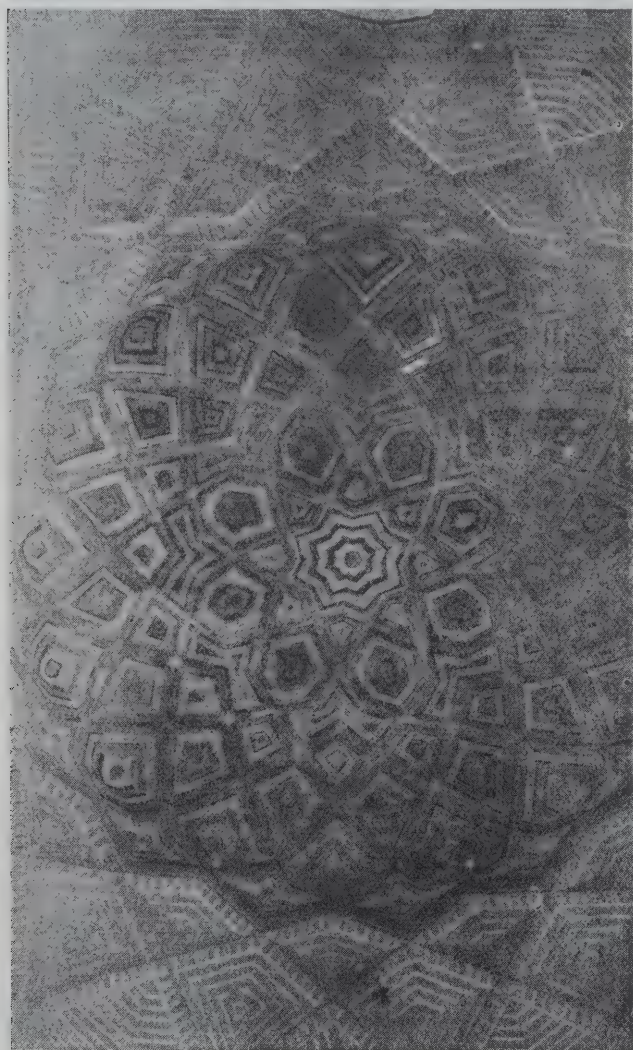


Interior arcade-opening of the Kiosk showing Spandrels enriched with Encaustic Tile (blue) of very fine quality (designed in Persian character). Below, recess with three centre brick vault.

the kiosk appear to be constructed of *encaustic* brick. These bricks are of excellent finish and of several sizes—those of the minaret being very long and narrow, recalling Roman tile, and so hard that I could make no impression on them. Their appearance is best described by saying that they gave the impression of being bricks

of glue, for they possess exactly the rich brown colour and high gloss of that substance.

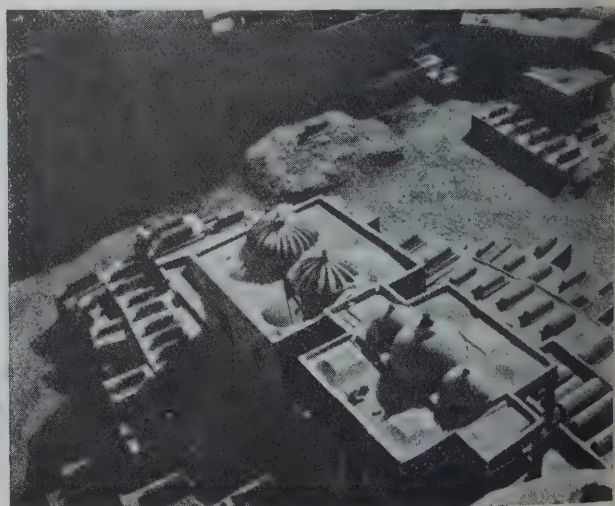
As well as the columns mentioned above, some of the tombs are constructed of what seemed to be large blocks of this material, the masonry being so perfect that I could not detect any joins. Indeed, the columns may be solid



Vault of Kiosk showing Brick Groining and Encaustic Tile Enrichment



Two finely Decorated Tombs in Encaustic Brick



View taken from Summit of Minaret showing Plan of Cloister and Design of Cupolas.



shafts. The monuments built of this substance are in all cases very finely worked—mainly with Persian designs and script—the detail being as perfect as when executed. Time does not appear to have affected the brickwork in the least—as far as appearance goes it might be newly from the hand of the builder.

Besides the bricks themselves the method of construction is worth remark. The exterior brickwork is cemented with a very hard mortar, but is not pointed. This is apparently intentional. It can hardly be due to decay of soft material, owing to lapse of time, as in that case traces would remain here and there to indicate the original condition. Many courses of bricks are set alternately in projection, and these seem to be cemented only at the back, for very little mortar can be discerned upon the sides in contact with the courses above and below. Although this does not seem to make for security, not a brick has fallen.

## Edinburgh Architectural Association.

MR. FRANK MEARS gave a lecture at a meeting of the Edinburgh Architectural Association held on Thursday, March 24, in the College of Art, Edinburgh, Mr. W. T. Oldrieve presiding. Taking as his subject "Town Planning in the Middle Ages," Mr. Mears said that towns were systematically planned in Western Europe during the twelfth and thirteenth centuries, and those of Scotland were no exception to the rule. The older burghs of Scotland show beneath later alterations and encroachments, evidence of an original setting out on most spacious and regular lines. The earlier inhabitants were partly engaged in trade or in the crafts, but each was obliged to have a holding within the burgh—documentary and comparative evidence showing that these holdings, as well as fields outside, were regularly cultivated. The lecturer showed by a series of examples drawn from England, France, and Belgium, that all earlier towns had common features. The town was not complete without common lands, mills, and in Scotland very frequently a port; while, in addition, Scottish burgesses held administrative sway for trading purposes over a large area of country surrounding them. In the later Middle Ages war and changes of occupation caused the building up of open spaces, and war especially helped to set up the tenement building tradition, which, the lecturer added, was the curse of Scottish city life to-day. The romantic city of the story-writers, with its narrow streets and overhanging houses, was a comparatively late and even degenerate development. The burghs in their earlier state could easily hold their own against any modern garden city scheme so far attempted, since the house plots had an area of often a quarter of an acre. It was important that in modern reconstruction schemes this spacious original layout should be recognised, for only by working back in some degree to the old conditions could we deal satisfactorily with decaying areas, which had only come to acquire the name of slums in quite modern times. The reconstruction of the real industrial slums, concluded the lecturer, would be a very much more difficult matter, the whole problem calling for co-operation between housing authorities and others in the working out of an adequate preliminary survey of the whole condition.

MR. SAMUEL HILL HOLME, of St. Oswald, near Chester, a magistrate and governor of the Chester Royal Infirmary, who died on January 7, aged eighty-nine, of the firm of Holme & Nicholl, builders and contractors, has left estate of the value of £86,091, the net personality being £78,983.

THE Bath and Wells Diocesan Association of Change-ringers propose to erect a memorial in Bath Abbey to members who fell in the war. The memorial has been designed by Sir T. G. Jackson, R.A., and a sketch of it was exhibited at an Abbey vestry last week. The main part will be in Portland stone, and the question was raised whether this would harmonise with the many marble tablets in the Church. A faculty is to be applied for.

## No. 1 Buckingham Street, Buckingham Gate, S.W.

(See Inset Illustrations.)

UNTIL recent years this street, together with the immediate neighbourhood, consisted of rather squalid houses of no architectural interest and late Georgian date. Now, however, most of the property has changed hands, and the houses have been modified and adapted to the needs of another class. The site of the house illustrated was occupied by a baker's shop and a small house adjoining, and, owing to the condition of the structure and considerations of plan, it was found desirable to clear the site. In the new building an attempt has been made by the architect, Mr. L. S. Crosbie, F.R.I.B.A., to obtain some of the effect of the quiet old Georgian manner, which is appropriate to the surroundings, the ornamental detail being restricted to the entrance. The bricks used are old London stocks, and the tiles are also old, so that the aggressiveness of new work is to a great extent avoided. The building contractors were Messrs. F. M. Thompson & Sons, of 14 Victoria Street, Westminster.

## Terrace and Garden House in Westgate, Louth.

(See Inset Illustrations.)

THE terrace and garden illustrated belong to a small house in Westgate, an interesting thoroughfare at the west end of the old town of Louth. The street contains some very interesting specimens of work from Queen Anne to late Georgian, and has very much the characteristics so often associated with English cathedral precincts. The terrace shown is approached immediately from the drawing-room, and was designed to afford a useful paved space for sitting-out, with steps and access to the garden. The garden house and stone wall are built of old materials, and the former is on the banks of the Lud, the innocent-looking little stream which brought such havoc to the town in May of last year. Mr. L. S. Crosbie, F.R.I.B.A., was the architect.

## "The Architect" Fifty Years Ago.

APRIL 2, 1871.

MR. AYRTON has announced the consent of the Government to the establishment of a public right of way along the existing roadways in St. James's Park from the gate by Marlborough House to Storey's Gate—that is, from the foot of St. James's Street round by Carlton House Terrace and the Horse Guards' Parade to the end of Great George Street. We confess to an inability to see the very great concession which is supposed to be here involved; but at the same time, although it ought to have been made years ago, we congratulate the First Commissioner upon the circumstance that common sense has at length prevailed. The amusing excuse set up by the honourable gentleman in his official capacity, to the effect that it is the interference with King Street (the obscure hunting-ground of recruiting sergeants at the back of Parliament Street) which alone enables him to open the Park to legislators proceeding from Grosvenor Square to their duties at the Palace of Westminster, may have been meant for a joke; but whether the present concession meets the real difficulty is very doubtful. What the interest of legislators in truth requires, is not merely to avoid Charing Cross and Whitehall, but to cut straight across the enclosure, instead of driving round it on an angle so acute that the distance from gate to gate is at least doubled; and this ought to be kept clearly in view. To cut in two the ornamental grounds and the lake by a cab road would be a desecration; but it is a sufficient equivalent for this which is actually the problem.

MESSRS. BELLERBY, SONS & HARTLEY, LTD., of York, painters and decorators, have secured, in competition, the contract for the painting of the inside and outside of York and Gateshead stations, and for the outside painting of the Royal Station Hotel, York. The work has to be completed within twelve months, and the contract price is over £10,000.



## The Royal Institute of British Architects.

A GENERAL meeting of the Royal Institute was held on Monday last, the 4th inst., at 9 Conduit Street, W. Mr. John W. Simpson, President, was in the chair.

The President announced that H.R.H. the Prince of Wales had graciously accepted nomination to the Honorary Fellowship of the Institute. It had been the desire of the Council to confer the highest honour at its disposal; and the Prince had been pleased to accept it as an indication of his desire to encourage the art of architecture and the Royal Institute of British Architects. The various processes enjoined by their Charter and by-laws having been complied with, he asked the members present to approve the election by acclamation.

H.R.H. the Prince of Wales was thereupon unanimously elected to the Honorary Fellowship of the Royal Institute.

The business of the evening was a paper by Sir Lawrence Weaver, K.B.E., F.S.A. (Hon. A.), dealing with

### LAND SETTLEMENT BUILDING WORK OF THE MINISTRY OF AGRICULTURE AND FISHERIES.

Sir Lawrence Weaver said that the relationship of Government departments to the practice of architecture has long been the subject of discussion in professional circles. He therefore devoted the greater part of his paper to methods of organisation both at the headquarters of the Ministry and in the County Councils, on whom the administration of the main portion of the task was devolved, first by the Small Holdings and Allotments Act, 1908; and later by the Land Settlement (Facilities) Act, 1919.

The work of land settlement for ex-Service men is the outcome of a pledge given during the war to men in His Majesty's Forces and to women who worked on the land during six months of the war, a pledge clearly repeated at the last General Election, that those who had fought for the land should have access to it as small-holders. This offer was, of course, subject to their being found suitable both as regards experience and the possession of enough capital.

The Small Holdings Colonies Act of 1916 empowered the Ministry to purchase and equip up to 60,000 acres of land. Only 25,000 acres have been so acquired, part of which are in estates divided into small holdings, and part in large farms under the charge of a director on which the settlers work for wages and receive a share in any profits earned. With the development of the work of County Councils, however, the Ministry has ceased to acquire new estates, and in accordance with the general principle of devolving all but essentially headquarters services on County Councils, some of its own estates will be transferred to them as soon as their equipment has been completed.

The total applications received in England and Wales between January 1, 1919, and December 1, 1920, when the list was closed have numbered 48,340. This figure relates to ex-Service men only, as the settlement of civilians is for all practical purposes suspended. It is expected that this total will eventually be reduced, owing to various causes, to 30,000. Of these, about 11,000 have been satisfied up to date, or if the men settled on the Ministry's own Land Settlement Estates, and certain civilians are included, the total number of settlers becomes 13,314. Land has already been acquired to settle 6,400 men. The Ministry may therefore have to acquire from now onward about 160,000 acres for the balance of 12,600 applicants.

Settling 30,000 men does not mean building 30,000 new cottages. In the first place, "small holding" is a term covering very widely different things, varying from a plot of bare land of from one to two acres for market gardening or fruit growing to a fifty-acre dairy holding equipped with a seven-roomed cottage, dairy, and a complete range of farm buildings. The small holdings supplied have ranged in capital cost from £100 to £5,000; but the maximum cost for any one holding, inclusive of

land and buildings, has lately been reduced to £2,500. The practice is, as far as possible, to provide the would-be small-holder in the differing agricultural areas of England with the sort of holding he wants and is accustomed to work on. The average-size holding works out at 13½ acres.

The exigencies of national finance have made it impossible for the Department to proceed with any of the improved transport schemes worked out. In the same way it has been necessary to postpone until happier times the policy of extensive housing on large estates and to satisfy the applicants' desire for land with the minimum amount of building. This means the acquisition either of pieces of suitable bare land in or near the village where the applicant lives, or of small farms well provided with a farmhouse, divisible into two or three dwellings, and some cottages.

Under the provisions of the Land Settlement (Facilities) Act, the creation of small holdings for ex-Service men is a wholly uneconomic proposition. The Act placed £20,000,000 at the disposal of the Ministry to meet the capital cost of the scheme, and the Government also meets all annual losses. The main fact to bear in mind is that the Government is paymaster, and must, therefore, exercise supervision. With loan money costing the Government 6½ per cent., and with cottages costing from £750 to £1,000 each, and farm buildings in proportion, it is obvious that the annual cost to the Government of an equipped holding is largely in excess of what any small-holder can afford to pay in rent and make a living.

Sir Lawrence Weaver estimates that, roughly, eight millions is the measure of the irrecoverable expenditure which will not be represented by rentals after 1926, when the small-holdings undertakings of the Councils will be valued. Such a financial operation, he said, would be wholly indefensible, except on the soundest ground of all, viz., that a solemn national pledge has to be fulfilled.

When Sir Lawrence took charge of the building programme of the Land Settlement at the beginning of 1919 he found the Ministry without a single architect to supervise the spending on building by County Councils of about eight millions of money. The world of architecture was not strange to Sir Lawrence. As his old friends walked out of the War Office with their demobilisation papers, Sir Lawrence fell upon them. His first list of superintending architects included the names of Maxwell Ayrton, Oswald Milne, Clough Williams-Ellis, John Lee, and H. P. G. Maule. It was never asked that they would desert the fierce joys and genial awards of private practice for more than a short time. But it is hoped that Major Maule and Captain John Lee will be retained till the task is over as chief architect and as a superintending architect respectively. With them are a staff of some twenty assistants. The Ministry's architects form mainly a superintending staff, and the duty of designing and building falls upon the County Councils.

Amongst the many virtues of County Councils is a strong sense of economy, more marked perhaps when they are considering their salary list than when they are spending capital moneys provided by the Treasury, but always marked. When the task of settling ex-Service men had to be confronted there was some difficulty in establishing the fact that the most economical way of carrying out a big building scheme is to employ thoroughly competent architects to design and supervise. The Ministry took the line that in such years as 1919 and 1920, when shortage of materials and of skilled labour called for a peculiar flexibility of mind, a readiness to scrap old ways of writing specifications and a capacity to accept new methods and employ them intelligently were essential qualities in an architect, that such qualities command good salaries, and that cheap architects made dear buildings. Sir Lawrence's main task as to employment of architects by councils, therefore, has been to urge the engagement of men with proper qualifications at proper salaries; this has meant in some cases awkward controversies, and even the Ministry's insistence on the



removal here and there of an architect who has proved lacking in skill and, therefore, wasteful of public money.

Full opportunity was given to the Councils for the employment of architects in private practice, but Sir Lawrence confessed that small-holdings architects appointed *ad hoc* or the existing county architects when they had experience of farm buildings, have provided the best solution. Small-holdings work is a special branch of architecture with very different problems from ordinary housing. First, the farm buildings are an exceedingly important part of the task, and each agricultural district has its own traditions and practices in the housing of stock and of crops, so that intensive local knowledge is of great value; secondly, the proportion of alterations to new work is abnormally high, and demands, therefore, an abnormal amount of supervision on the spot; thirdly, the work is so extraordinarily scattered over the country that in the present difficulties the actual organisation of building represents a far larger proportion of the whole task than in any other sort of work.

The best results have come from the intimate and continuous association of county land agent and architect, both whole-time servants of the Council, working in the same building, and visiting the works together. It is rare, though not unknown, to find a man with the required knowledge of both sides of the small-holdings problems who can tackle both land and buildings.

In counties where architects in private practice have been employed for small holdings, there have been delays in carrying out the work, lengthy correspondence about trifles which two colleagues would settle in three minutes, and it has proved more costly. Sir Lawrence was careful to explain that he limited this unfavourable opinion to the case of this highly specialised sort of work in the conditions in which it now has to be done. His personal view is that it does not apply, and ought not to apply, to important public buildings in which architectural abilities of a very different order are required. The architect in charge of cottage and farm building schemes needs to be equipped with artistic talent, but must be even more an organiser and economist, whereas the architect of a public building must, first and foremost, be an artist, a qualification which the methods of recruiting for Government offices, and the terms and conditions of service therein, can hardly be held to ensure. In short, the qualifications desirable in the architect of public buildings are seldom found in a man fitted to be a good Government servant.

Owing to the frequent impossibility of getting a firm tender for small-holding work, it became necessary for County Councils to set up small works departments. The Ministry has already sanctioned the expenditure of £366,500 on the adaptation of existing buildings and £1,636,000 on new work. The total task, spread over sixty-two administrative counties, will probably be 3,000 new cottages and 1,900 sets of new farm buildings, in addition to the adaptation of hundreds of both.

It is a principle of the Government that the building work required by all Government offices shall be undertaken by one technical Department, H.M. Office of Works, and that rule was applied to the Ministry's own farm settlement estates, extending to about 25,000 acres. Sanction was obtained, however, for the Ministry's Building Branch to undertake the equipment of the farm settlement at Amesbury, Wiltshire. Here there was built thirty-two cottages to every sort of plan and in every sort of material, five of them to the specifications of the building experts of the Department of Industrial and Scientific Research. Certain broad conclusions were arrived at. Traditional cob is hopelessly expensive unless there happen to be handy a group of men who are familiar with it, but it gives an admirable house. Pisé with the chalk soil of Amesbury is about the same price as brick, given always efficient shuttering, which the Ministry claims to have perfected in a very simple form. Pisé gives a very sound wall, but the plan must suit the material, and experience is needed to achieve this.

Concrete blocks of chalk, twelve to one, made with any ordinary good machine, are thoroughly sound.

Timber houses well built were found no cheaper than brick. Various proprietary methods of concrete block building wrought no deliverance. The greatest novelty, devised by the Research Department, was a concrete of chalk and cement, twenty to one, mixed quite dry, and rammed between shuttering, which proved very satisfactory but no cheaper than brick. Brick, indeed, held its own perfectly.

Sir Lawrence Weaver said he looked forward to the times when a return to something approximating normal conditions will enable the Ministry to cease direct control of building operations. His main objection to such control was a financial one. Government Departments should keep out of business. Rigid Treasury control is absolutely essential, and rigid Treasury control makes commercial enterprise impossible.

The concluding portion of the lecture was devoted to showing on the screen photographs and plans of cottages and farm buildings erected on small holdings. Sir Lawrence made no claim that the work was great architecture, but he did claim that the buildings were "decent."

#### DISCUSSION.

The Right Hon. Lord Riddell, in proposing a vote of thanks, said he had enjoyed a very instructive evening. It had been a most lucid paper, with admirable pictures illustrating the work of the Ministry of Agriculture and Fisheries. When Sir Lawrence commenced his observations he was rather fearful of the burning question of the incursion of the Office of Works into architecture. It had been good to hear that architects were not so much for economy as other people; it seemed a horrible thought that, for the sake of a few million pounds, their dear England should be rendered less beautiful by the construction of wretched little cottages. Sir Lawrence had stated the Government were under obligation to erect the small-holdings' cottages. Personally he considered it as a good investment. The main purpose of the authorities ought to be to have a happy agricultural population. He would gladly be taxed to secure that. In the long run it would prove an economy. People were ready to sacrifice their feelings if satisfied that such sacrifice would be for the public good. The experiments in construction at the Amesbury Settlement were important, because it would have been very difficult to have had them carried out by segregated architects. Personally he thought it was right that for certain purposes the Government should employ its own architects and do its building work.

Sir Douglas Newton, K.B.E. (chairman, Cambridgeshire County Council), said that few people realised how large and complex were the problems the Ministry of Agriculture has faced. With its far-reaching powers it was very necessary to advance with tact and discretion. The employment of architects by County Councils had been a highly debated question at one time. Now most County Councils employ at least one, and sometimes two architects. A very great advantage was to be gained by a close co-operation between the official architect and the land agent. Sir Lawrence Weaver had explained that small-holders do better if they are grouped on large blocks of land. In Cambridgeshire the County Council found the great majority prefer to live in villages. It would be a very great advantage to encourage this, because community life and co-operation could be developed only if the men were close together. In Cambridgeshire they proved that contractors were better fitted and more astute in the management of labour than were the County Council, and, consequently, that it was not a very good plan to set up a works department. He hoped Sir Lawrence or his Ministry would not encourage the creation of works departments in the large area under their control at the present time.

Sir Sydney Olivier, K.C.M.G., and Mr. W. P. Black (South Africa), having briefly taken part in the discussion,



Mr. John W. Simpson put the vote of thanks. He thought their old friend Sir Lawrence Weaver had made out a very excellent case for his department. Personally he was opposed to the practice of any Government department carrying out work which could be better done by private enterprise. It was at least doubtful morality to keep up a department which deprived other people of their livelihood. That remark, of course, applied to the policy and not to individual members.

Sir Lawrence Weaver having briefly acknowledged the vote of thanks, the meeting terminated.

THE following are notes from the Minutes of the Council Meeting, March 14, 1921:—

*Conditions of Building Contracts.*—The President reported that a friendly and informal Conference had taken place between several members of the R.I.B.A. Council and several leading master builders on the subject of conditions of contract, and that it was hoped that formal negotiations would be resumed on a satisfactory basis at an early date.

*The Building Industries' Consultative Board.*—Mr. Delissa Joseph was appointed to serve as a representative of the R.I.B.A. on the Board, in the place of the late Mr. Henry T. Hare.

*Building Trades Parliament.*—Mr. George Hubbard was appointed to serve as a representative of the R.I.B.A. on the Building Trades Parliament in place of Mr. Paul Waterhouse, resigned.

*Royal Commission on Fire Prevention, &c.*—At the invitation of the Home Secretary the Council nominated Mr. Digby L. Solomon to serve as a member of this Commission.

## Forthcoming Events.

*Friday, April 8.*—London Society.—Meeting at 18 John Street, Adelphi, W.C. Paper by Miss Norah March, B.Sc. (Editor of "National Health"), entitled "London Development in Relation to Health." 4.30 P.M.

*Monday, April 11.*—Bristol Society of Architects.—Annual General Meeting.

—Surveyors' Institution.—Meeting at 12 Great George Street, Westminster, S.W. Paper by Mr. Leslie S. Wood, F.S.I., entitled "The Forestry Directorate in France." 8 P.M.

*Tuesday, April 12.*—The opening of the Building Trades' Exhibition at Olympia by Mr. J. W. Simpson, P.R.I.B.A., 12 o'clock.

*Friday, April 15.*—Architects' Welcome Club.—Popular Lecture at the Building Trades' Exhibition, Olympia, by Professor Beresford Pite, F.R.I.B.A., entitled "The Effect of Building Materials on Architecture." 6 P.M.

—London Society.—Visit to the Apothecaries' Hall. 5 P.M.

*Saturday, April 16.*—Architects' Welcome Club.—Reception in the Pillar Hall, Olympia, by the Presidents and Councils of the R.I.B.A., the Society of Architects, and the Architectural Association to Architects and other Guests, 3 P.M.

## Progress of Housing Schemes.

New housing schemes submitted to the Ministry of Health during the week ended March 18 numbered 20, bringing the total number of schemes submitted to 11,481. The schemes approved now number 9,016, and comprise about 57,630 acres.

Twenty-eight lay-out schemes were submitted and thirty-seven were approved during the week, bringing the total number of lay-outs submitted to 7,440, and number approved to 6,882.

House-plans representing 650 houses were submitted and plans for 327 houses approved. The total number of houses represented in all plans now submitted is 293,853, and in the plans approved 274,970.

During the week tenders were submitted for 1,061 houses. Tenders for 290 were approved, bringing the total number of houses in tenders submitted to 190,484, and in tenders approved to 175,855. Contracts have been signed for 153,414 houses.

## The Case for Owners of Working-class Dwellings.

THE Editor of "Housing" has given Mr. Edwin Evans J.P., L.C.C., President of the Property Owners' Protection Association (Limited), space to express the owners' point of view, and to set out some of the unfortunate conditions now arising, in connection with the repair of existing working-class property. His communication is as follows:—These conditions, in my judgment, will speedily lead to disastrous results for both owners and their agents, and indeed to housing generally.

It is becoming the practice of Local Authorities to communicate with every party interested in property in respect of which notices to repair are served, such as mortgagees, ground landlords, superior lessees, and so on, with the result that such ground landlords, mortgagees and others are serving separate notices to repair as well as notices calling in mortgages, with consequent demands for solicitors' and surveyors' costs.

Local Authorities are in some cases informing tenants that they (the Local Authority) propose to take the initiative, and themselves apply to the Courts to issue certificates that houses are not in such a condition as to entitle the owner to the increase in the rent, thus preventing such owners from obtaining the small increase allowed under the 1920 Act, which could be spent in gradually improving their properties, and putting them in a good state of repair, and without which, in thousands of cases, it is quite impossible for the owners to do so. Apart from this, action of this kind upsets the amicable and friendly arrangements being made between owners and their tenants.

Agents are made responsible, under the Public Health and Housing Acts, for the cost of carrying out the work required, and under the former Act incur penalties for failure, notwithstanding the fact that they have no interest whatever in the property, other than the hard-earned commission for collecting the rents.

Notices are being served wholesale, and in almost every case only the *minimum* time allowed under the Act, viz., twenty-one days, is given to perform the work; and in default, in many cases, these Local Authorities are themselves carrying out the work by direct labour, with wasteful and unsatisfactory results.

Apparently no appeal lies against notices under Section 28 of the Housing and Town Planning Act, whether reasonable or not, a condition of things manifestly unfair and "unBritish."

Owners of small property are compelled to carry out work which, under all rules of good citizenship, should be performed by the occupier.

Occupiers sub-let portions of houses frequently at profiteering rents, the houses concerned having been constructed for the occupation of one family only. These lettings are more often than not in direct opposition to the terms of tenancy. Then the Local Authority come down upon the owner to provide extra sanitary accommodation, water supply, light, food storage, cooking facilities, &c., the cost of providing which, in these days is perfectly ruinous.

These are only a few of the unfair conditions which are driving owners of working class dwellings to despair and which, if persisted in, will lead to the abandonment and consequent wrecking of many small properties all over the country.

As a representative of over 6,000 property owners in London, I am constantly reminding them that the ownership of property carries with it the obligation of good stewardship, and am doing my best to bring about a more friendly understanding between owners and their tenants urging that every penny of the increased rent should be used in making the habitations of the people at least healthy, and if possible more comfortable. Whilst doing this it ought to be made clear that occupiers have their obligations as well, and that it is their duty to keep their premises they occupy clean and wholesome.



# BUILDING EXHIBITION OLYMPIA.

**OUR STAND - N°97, Row E.**

Report of the EXHIBITS  
on following pages.



**ADDISON R  
ENTRANCE**

**ROW A**

## The Building Exhibition, Olympia.

THE Building Trades have not been in any marked degree the recipients of the favour of the gods since the outbreak of the war, and it would seem that the great Exhibition of building products and inventions which has become a recurrent feature of our lives is to have similar misfortune meted out to it. But Mr. Montgomery may console himself with the reflection that if we are jointly unfortunate we are at least brothers in misfortune, for architects and builders alike recognise the sterling work which Mr. Montgomery has effected for the Building Trades. It is true that these exhibitions are commercial undertakings; it is not the less true that no one who had not sympathy and insight could have organised them as they have been organised.

We hear of other exhibitions—we might almost say we cannot get away from the voice of a Press which holds them up to our admiration—we hear of the crowds who visit them, but can any man point out the substantial good they have done? We think not, and we are almost driven, in spite of the oracular words of the Press which advocates their merits, to believe that they owe their being rather to the desire to further the interests of that Press than to bestow benefits on the human race. We have, too, much reverence for the section of the Press which we refer to to say that this is so, but we sometimes confess to an unworthy doubt.

In the case of the Building Exhibition, we know at the outset that we are going to see no happy suggestions of manners in which we can build for next to nothing. There is also nothing there which will prove an irresistible attraction to children in arms and nothing which will compete with a cinema or toy-shop.

On the other hand, it is an exhibition which no builder who is progressive and wants to keep abreast with the times can afford to miss; no firm which has a new material which it wants to introduce to the building world can afford to remain unrepresented, for those who have a good thing to show know that its merits will be seen and appreciated, while architects have the opportunity, without going through piles of catalogues, of seeing what will best satisfy some object they have in view. Many will find it a help to bring their clients there to show them what can be better understood when seen than when described. It is, in a word, an exhibition for business men, and, though Mr. Montgomery might have made more for himself had he converted it into the usual "show," it is greatly to his credit that he has never done so.

For all these reasons we are especially sorry that the opening of the Exhibition should synchronise with an era of industrial strife, but, after all, building must, and will, be resumed sooner or later in full activity, for, though it may be held up by untoward circumstances, it is one of the greatest of the necessities of civilised life, and the work of agitators and mischief-makers can only retard, and not destroy, future fulfilment.

The following programme of meetings and conferences is supplementary to those noticed under our Forthcoming Events:—

*Tuesday, April 12.*—3 P.M.—London Master Builders and Allied Industries Association. Reception.

*Wednesday, April 13.*—1.45 P.M.—Concrete Institute.

*Thursday, April 14.*—12 o'clock.—Institute of Clay-workers.—Annual meeting. 1 P.M.—Luncheon. 2 P.M.—Institution of Heating and Ventilating Engineers. 3 P.M.—"London in the Time of Henry VIII.," public lecture by Mr. H. A. Cox. Lantern views.

*Tuesday, April 19.*—2.30 P.M.—Institution of Municipal Engineers. 4.30 P.M.—Marble Workers' Employers' Association. 6 P.M.—"Our Towns and Villages, and How we spoil them." Public lecture by Mr. Raymond Unwin, F.R.I.B.A. 1.30 P.M.—Concrete Institute luncheon.

*Wednesday, April 20.*—Royal Sanitary Institute National Federation of Building Trades Employers Great Britain and Ireland.

*Thursday, April 21.*—3 P.M.—Municipal Engineers Conference. 11 A.M., 12.15 P.M., 2.30 P.M.—Institution of Quarry Managers. 11 A.M.—Lecture, "Industrial Efficiency in the Quarrying Industry, by H. N. Cass Esq. 12.15 P.M.—Lecture, "Industrial Accidents Levy on Capital and Wages," by A. Winter Gray, Esq. secretary, Safety First Association. 2.30 P.M.—Lecture "Crushing and Sifting," by Professor J. W. Hinchley. A.R.S.M., Wh.Sc., F.I.C.

*Friday, April 22.*—3 P.M.—National Federation Builders' Merchants Associations. 6.30 P.M.—Architects' public dinner (Pillar Hall).

The exhibition closes on Tuesday, April 26.

### THE CONCRETE INSTITUTE.

THE Concrete Institute has arranged the following fixtures for the forthcoming International Building Trades Exhibition at Olympia. On Wednesday, April 13, an official visit will be made, members assembling in the Princes' Rooms at 1.45 P.M. for 2 P.M. Parties of members will be conducted round the Exhibition by appointed guides, under the direction of Mr. A. Alban H. Scott, M.C.I., arrangements have also been made for Mr. H. Kempton Dyson, M.C.I., to give a lecture at 4.30 P.M. on the same afternoon in the Lecture Hall dealing with "Building in Concrete."

It is intended also to have a luncheon at the Exhibition on Tuesday, April 19, at 1.30 P.M., price of tickets 6s. 0d. each, exclusive of wines, &c. The Right Hon. Christopher Addison, M.P., and Mr. G. Topham Forrest, F.R.I.B.A., Hon. M.C.I. (Superintending Architect Metropolitan Buildings), will be the chief guests. At the luncheon Mr. A. Alban H. Scott, M.C.I., will speak upon the subject of "Building By-laws and Regulations."

Season tickets for the Exhibition can, by the courtesy of Mr. H. Greville Montgomery, be obtained from the Secretary of the Concrete Institute, Denison House, 296 Vauxhall Bridge Road, S.W. 1.

A visit has been arranged for Saturday, April 16, at the courtesy of the architects, Messrs. Herbert C. Ellis and Clarke, to the new reinforced concrete premises being erected in Summer Street, Southwark, for Associated Newspapers, Limited. Members will assemble at 2.45 for 3 P.M.

The adjourned discussion on Mr. E. S. Andrews' paper on "Methods of Securing Impermeability in Concrete" will be held in the Council Chamber, Denison House, on Thursday, April 14, at 7.30 P.M.

*James Austin & Sons, Ltd.* (Hoxton), include, on Stand 190, Row J, a model of the first plaiting machine invented in 1777, together with Walford's original patent. They are justified in showing this interesting link with the past, because the firm is certainly one of the oldest in the British rope trade, and the process of plaiting cordage has been a speciality of theirs for more than three generations. The same quality which secured for their goods a medal in the 1851 Exhibition also secured for them the more eloquent distinction of being selected during the late war to make all the life lines used for the attachment of flying officers to the "Guard Angel" parachutes, as well as to supply large quantities of the log line used by the Navy. The factories controlled by James Austin & Sons, Ltd., manufacture nearly every variety and form of plaited cord on most up-to-date machinery and methods. Specimens will be shown on the stands.

At Row D, No. 56, *Messrs. Batsford* (94 High Elborn, London), show a splendid selection of their books which cover every branch of architectural and building practice. This exhibit will appeal irresistibly to every visitor to Olympia. The volumes shown range from



stately folios illustrating the masterpieces of architecture of the past and of the present, to the humble but necessary handbooks for the apprentice about to enter the trade. The name of Batsford is honourably associated with the literature of architecture, and their record of achievement is well demonstrated in this exhibit.

*Lewis Berger & Sons, Ltd.* (Homerton, London, E. 9), have as their main exhibit four rooms with walls decorated in an entirely new decorative material—"Matroil," the oil paint you thin with water. Visitors should note the smooth, dead-flat finish which, being absolutely non-absorbent, is really washable; also the beauty of the clear-toned colours, each of which is in accord with the public's known colour preferences. The colour schemes were designed by the Berger Decorative Service Studio, which prepares schemes free of charge. The white woodwork is finished in Enamelac, the grained woodwork in Scumble transparent graining colours finished with Berger varnish. Finished panels show what can be done under average conditions with Pompeian paint—M.P.P., Arboreum (good preserving stain), and Berger's strong stainers. A special exhibit will be "Tilo," a plastic roofing compound for making roofs watertight, and for glazing purposes, instead of putty. Demonstrations of Berger materials will be given daily at the stand by practical painters.

*British-Canadian Export Company, Limited*, (of Canada) are demonstrating how to make the best use of the reduced area of the working rooms of houses, flats, etc., such as the kitchen and scullery, necessary to-day owing to high costs of construction. The special demonstration kitchen-scullery in seven feet square which Mr. E. W. Crowe, their agent (83 Pall Mall, S.W. 1), has put up at Stand 44, Row C, should be most instructive to architects, speculative builders and the trade generally. The basis of this arrangement is the "Easiwork" Kitchen Dresser, which in the one fitment provides a table, a dresser and cupboard, being made in hardwood this fitment is not affected by the changes in temperature which occur where cooking is done. A new type Boulton sink and a Richmond Bungalow Gas Cooker are provided. A "Barnet" Refrigerator is included to provide larger accommodation, and the top is used as an extra table. Special hygienic vitreolite walls, and Parbolith flooring are used.

*Building Products Limited*, (Columbia House, King's Road, Sloane Square, S.W.), specialises in various materials for treating concrete so as to increase its efficiency and widen its field of application. An interesting feature of the exhibit will be a practical demonstration of the efficiency of their cement waterproofing materials, Bareau and Prufit. This demonstration will also prove the damp-proofing properties of Prufitol for porous brick and stone work.

Samples and specimens of all the company's products will be shown. The waterproofing specialties include Bareau and "Prufit" a cement concrete waterproofing powder and paste respectively; "Prufitol" brick, stone and stucco surface proofer; "Fillertex" plastic crack joint filler, and "Fibrad" a Fibrated bitumen mpcourse.

Their factory specialties will be "Rigifix" Bolt Hanger Sockets, Slotted Inserts and Column Guards for the simple attachment of machinery to concrete and protection of concrete columns and curbs; "Ferrolithic" concrete floor hardener and dustproofer; "Aqualithic" liquid dustproofer and hardener for existing concrete floors; and "Fibrad" three-ply roll roofing. Other exhibits will include bar bending and cutting machines; mould oil, spraying machines, drum and can tilter.

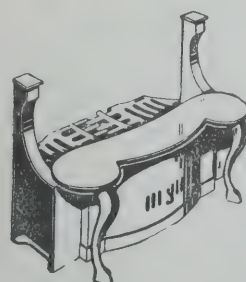
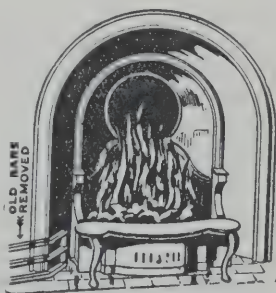
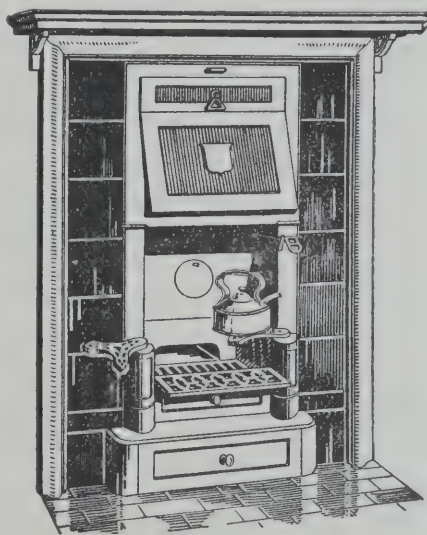
*The Cement Marketing Co., Ltd.* (16 Lloyds Avenue, C.), is, as our readers are doubtless aware, the selling organisation of: The Associated Portland Cement Manufacturers, Ltd., the British Portland Cement Manufacturers, Ltd., Messrs. Martin Earle & Co., Ltd., and the Cudham Cement Co., Ltd. The exhibit at Stand 110, Row F, consist of: Samples of the companies' brands of Portland cement; cement at various stages of its manu-

facture and ground to various degrees of fineness; neat and sand briquettes of various ages for testing strains; aggregates of various description, both suitable and unsuitable for mixing with Portland cement; a complete set of testing apparatus used in connection with the requirements of the revised British standard specification. Practical tests will be made with this latter, as also with an hydraulic crushing machine (for cubes of 50 sq. c.m. area) reading up to fifty tons, made at the A.P.C.M. engineering shops from their own designs. There will be samples of lime, whiting, superfine Keene's and Parian cements, sacks, casks, and drums.

The Stand of *Cuirass Products, Ltd.* (69 Victoria Street, S.W.), is No. 18, Row B, on the ground floor, where they are exhibiting the waterproofing qualities of their several products on cement, zinc, felt, &c. A merit of Cuirass Liquid Proofing No. 6, is that being applied cold with a brush the work is done in perhaps a quarter the time than were a trowel used. They are also showing the effect of their anti-corrosive paint on constructional work. This paint, due to its great covering power, is extremely economical, in fact they advise contractors only to order one-third as much Cuirass paint as they would of an oxide paint, because it covers three times the normal surface. Cuirass wood preservative is another successful product of this firm.

The "Hurry" Water Heater Co. (39 Broad Street, Birmingham), are showing under working conditions at Stand 225, Row L, a No. 3 "Hurry" Water Heater, delivering hot water to a bath and lavatory basin, also a No. 10 "Hurry" Circulating Cylinder, and a "Hurry" Furnace. The latter two also delivering hot water to baths. In the gallery (Stand 32 in Row B) they have a similar exhibit, but with several other additions. "Hurry" Water Heaters for gas, oil, and coal fuel will be on view.

*The Interoven Stove Co., Ltd.* (156 Charing Cross Road, W.C. 2), must rank among the seniors in the rapidly increasing number of makers of convertible stoves.



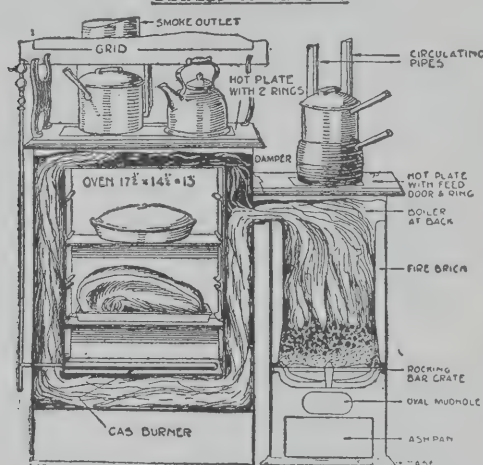
It is many years ago since medals and other awards commenced to fall thickly upon them. For instance, in 1911 the company received highest awards for improvements in house fittings at the Gidea Park exhibition, and the prize medal at the Royal Sanitary Institute Congress at Belfast. The "Interoven," therefore, carries with it the not-inconsiderable advantage of being well-tried by the course



of years. Like a certain other well-known commodity, it is "still going strong." The recent boom in small house construction has created a big opportunity for stoves which can efficiently play the dual rôle of cooking-range and artistic firegrate. "Interovens" have been supplied to the estates of H.R.H. the Prince of Wales, H.M. Office of Works, the L.C.C., Messrs. Vickers, Ltd., the principal garden cities, and thousands have been ordered by the D.B.M.S. for housing schemes throughout the Kingdom. Another patent of the company which is exhibited on this stand is the "Bewty" fire—an expanding barless fire-front for adaptation to existing old-fashioned grates. It has three varieties, viz.—"Bewty Minor," "Super Bewty," and "Bewty Dog Grates."

Robert Jenkins & Co., Ltd. (Rotherham) have in operation, as the central feature of Stand 223, Row L, their "Eco" combination of a coke (or anthracite) fired boiler, connected by means of the flue to a gas or electric cooker. The water-heating part of the combination is to all intents and purposes an independent boiler, the only difference being that all the heat which is ordinarily

#### DETAILS OF SECTION



wasted in the flue is in the "Eco" first passed round the oven, which in this way is maintained at just below cooking heat. Two types of independent boilers will be exhibited—the "Kakor" and the "Don." Both are made of welded mild steel, which is, of course, far more reliable and durable than the cast iron which is frequently employed in the manufacture of such boilers. The "Kakor" is a particularly fine example of domestic-boiler design, and will be shown in operation at the exhibition. It is made in six sizes, with capacities ranging from eleven to ninety-four gallons of scalding water per hour. The "Don" boiler is made in four sizes, having capacities from forty-two to ninety gallons of hot water an hour. It is cylindrical in shape (the "Kakor" is rectangular), and is fitted with a top having a reversible smoke outlet, suitable for a vertical or horizontal flue. Messrs. Jenkins will also exhibit a variety of their well-known arch and boot type boilers, for use with ordinary ranges, and several patterns of their special copper and steel cylinders.

Messrs. Johnsons' Reinforced Concrete Engineering Co., Ltd. (Head Office, Lever Street, Manchester), have, as at previous exhibitions, very effectively displayed their specialities of reinforcements. The "Keedon" method of reinforced concrete construction, which is both efficient and economical, is shown in a framework round the stand. The fitments are keyed to the main reinforcing bar on the ordinary wedge principle, thus combining rigid and yet adjustable members with a non-slipping bar. The steel-wire "Lattice" reinforcement is exhibited in rolls, as delivered on the job. This is a most economical form of reinforcement, and has been extensively used for floors, roofs, walls, roads, and similar construction. It can be manufactured in pieces to any size to suit their customers' requirements. To demonstrate the additional lateral strength given to a brick wall by reinforcing it with "Bricktor," there has been erected a 4½-inch wall reinforced in each course and laid on its side between supports giving 7 feet clear span. A number of photo-

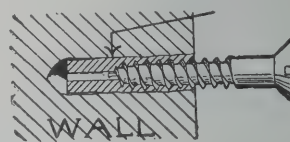
graphs show typical examples of the firm's work. In conclusion, we may state that the Lattice and Keedon System is the only system to our knowledge where the shear members are adjustable yet rigid and where the Lattice is delivered on the site as a complete fabric in suitable lengths and widths ready for laying.

Among a very large number of patent reinforced floors those of the *Kleine Company* occupy a deservedly high place, both for their lightness and the scientific manner in which material is used. The floor, which is well known, is best described as being a hollow brick floor with reinforced concrete rods between each range of hollow bricks, the rods acting as tension bands. The system is similar to that in general use in France and other parts of the Continent where reinforced construction had its birth, and where it has been most carefully studied both by engineers and architects. A feature of the Company's stand will be the small-scale models which will be constructed from day to day during the exhibition, and which will do more than anything else to familiarise visitors with what is a most skilful and well-proved form of reinforced construction. The very large and increasing number of contracts entered into by the firm is a sign of the efficiency and suitability of the patented methods of construction, and, we are told, reaches the number of 1,001.

F. McNeill & Co., Ltd. (4 South Place, E.C. 2) at Stand 177, Row J, will have on view a large variety of their widely known "Lion Brand" roofing and roofing felts. Instructive models have been made to illustrate the most economical and efficient manner of employing them. Particular attention is drawn to the "Combinite" system for flat or sloping roofs, as adopted by many large factories and mills. Another model gives a practical demonstration of the sound-proof qualities of "Slagbestos," a patent slagwool for cold-storage and other kinds of insulation. The fireproof qualities of "Slagbestos" are shown by a lighted Bunsen burner being placed in direct contact with a pile of it. Messrs. McNeill are manufacturers of various damp-courses to the Ministry of Health's specification. It may also here be mentioned that the firm, which was established in 1833, have been Government contractors for over seventy-five years. Other specialities are pipe-coverings and a pure bitumen sheeting for lining reservoirs, swimming-baths, &c.

The Phoenix Engineering Co., Ltd. (Phoenix Works, Chard), will be exhibiting as usual in the Surveyors' Station, Stand 9, Row B, Gallery 2, their well-known "Floodgate," diaphragm and other hand contract pumps, tar spraying machines for roads and paths, boilers, &c.

The Rawlplug Co., Ltd. (Lenthall Place, South Kensington, S.W. 7), are exhibiting their patent Rawlplug the examination of which will prove of interest to all who fix any article to any class of wall. Rawlplugs consist of a small tube of stiffened fibres, which when pushed into a hole in the wall made by the patent Rawlplug tool automatically expand when a screw is turned into the tube thus making a perfectly firm and permanent fixture.



Fibre Wall Plugs which will enable a Standard Wood Screw to hold in any Material.

In addition to their labour-saving in comparison to the old slightly and unreliable plugging of walls with wood blocks the plugs are invisible when in position, require no skill in handling, and the fact that an ordinary No. 8 size screw will support over half a ton weight in ordinary soft brick proves the point of holding power. We recommend our readers to visit the Rawlplug stall, where they will see various applications of these wonderful little plugs—the examples ranging from heavy water pipes and cinder seats down to the smallest sheathed wiring—these being shown on various classes of wall.



*The Regent Wallpaper Co.* (of Brixton), prides itself on the great range of their exclusive specialities as well as on the number of their original patterns. Their exhibit includes hand-worked decorative panels and special hand-worked fillings. A feature is made of a series of decorative panel schemes with friezes, borders, corners, &c., *en suite*, which will be found to be marked by good taste no less than by individuality. Quality is indeed conspicuous in all the goods. Mention must be made of the original nursery decorations.

*The Sussex Brick and Estates Co., Ltd.* (Horsham), have an imposing list of post-war contracts to which their products have been supplied. The principal lines of brick are Southwater Engineering or Sewer No. 1, Southwater Machine-Pressed Red Facing, Southwater Engineering Red, and Southwater Pavoids. Beside the various qualities mentioned, the firm produce channel bricks, radiated, circulars, &c. (to any shape or size, by special order); handmade, kiln stocks, flared reds, common bricks, pressed and wire cut, &c.

A stand well worth seeing is that of *Messrs. Percy C. Webb, Ltd.* (of St. Katharine Docks, London). This old-established firm is catering for the decorative and shopfitting side of the trade, as well as for monumentalists. It is showing a selection of white, yellow, black, grey, green, and red marbles in polished slabs. They include beautiful red Rosso Antico; Vert Rondino, quite a "Liberty" shade of green; Alberico, a yellow-fawn marble; and Cipollino. There will also be some beautiful varieties of Onyx. On the stand, too, will be found two excellent Somersetshire stones not so well known to London and East Country trade as they deserve. We refer to Bryscom and Carso blue. Bryscom can be used as a stone for monumental and building purposes, while its warm tone and brightly brecciated pattern indicate its possibilities as a decorative marble. Messrs. Webb have taken a considerable financial interest in the quarries. Modern machinery has been put down, and the material can be supplied quickly in slabs, scantlings, and blocks.

The "Winget" Stand bears witness to the enterprise of the firm which has supplied machinery for housing schemes on the concrete block system all over the king-



The "Westminster" Machine. Manufactured by Winget, Ltd.  
View showing Six Concrete Bricks made at one operation.  
It will also manufacture Concrete Blocks and Slabs.

dom. The "Winget" Works at Warwick has been equipped with improved plant which, with mass production and organisation, enables the firm to bring down prices to a minimum. Every class of builder and contractor is now provided for, not only with concrete block, slab-making, and roofing tile machines

and concrete mixers, but also with labour-saving appliances in the shape of wagon loaders, elevators, and crushers. The latest novelty from the "Winget" Works is a cheap, handy machine called the "Westminster," which makes blocks, slabs, and bricks. The "Westminster" brings concrete construction within the reach of the smallest builder or estate owner, and can be operated by one man. It is also obtainable with accessories for manufacturing bricks only, or blocks and slabs. The pallet employed in each case is the same as that used in the well-known "Winget" pressure machine, which, with the standard 32-in. block-making machine, together with "Winget's" other plant, will be seen in operation on Stand 123, Row G. The registered office of the firm is Winget House, 24 Grosvenor Gardens, Westminster, S.W. 1.

## South Wales Institute of Architects.

A LARGE and enthusiastic meeting of the South Wales Institute of Architects was held at the Institute Rooms, No. 6 High Street, Cardiff, on March 31, when the following officers were elected for the ensuing year:—

*President.*—H. C. Portsmouth, F.S.Arc. (Swansea).

*Vice-President.*—Percy E. Thomas, O.B.E., A.R.I.B.A. (Cardiff).

*Hon. Treasurer.*—H. Teather, F.R.I.B.A. (Cardiff).

*Hon. Auditor.*—J. Cook Rees, O.B.E., F.S.Arc. (Neath).

*Hon. Librarian.*—C. H. Kempthorne, Lic.R.I.B.A. (Cardiff).

*Members.*—Sidney Williams, M.S.A., Cecil Wilson, F.R.I.B.A., T. Alwyn Lloyd, F.R.I.B.A., E. C. M. Willmott, A.R.I.B.A., Central Branch representatives; Glendenning Moxham, F.R.I.B.A., Thomas Gibb, M.S.A., J. Herbert Jones, F.S.Arc., Western Branch representatives; C. F. Ward, F.R.I.B.A., J. H. Vaughan, A.R.I.B.A., C. E. Tebbs, A.R.I.B.A., Eastern Branch representatives; E. W. G. Richards, M.S.A., W. D. Morgan, M.S.A., J. Llewellyn Smith, F.R.I.B.A., Northern Branch representatives.

*Associates' Representatives.*—J. Colin Jones, Central Branch; G. L. Crocker, Western Branch; H. Rowe, Eastern Branch; A. Almond, Northern Branch.

Mr. C. H. Kempthorne resigned the position of Hon. Secretary, which he has held for the last five years, and Mr. Ivor P. Jones, A.R.I.B.A., was unanimously elected as his successor.

Mr. H. C. Portsmouth, F.S.Arc., the new President, is the senior member of the well-known firm of Messrs. H. C. Portsmouth & Son, architects, Swansea. In his address to the members he mentioned the fact that in the early days of his career he came to Cardiff as an assistant to the firm of Messrs. Seward & Thomas, and was appointed by them to manage their Branch Office in Swansea. Mr. Portsmouth has taken a keen interest in the affairs of the South Wales Institute of Architects, and his appointment is a very popular one to the whole of the architects in South Wales.

THE annual meeting of the Northern Architectural Association was held on April 5 at the rooms of the Association, 6 Higham Place, Newcastle. The following officers, having been duly nominated, were declared elected:—President, Mr. T. R. Milburn, F.R.I.B.A.; Vice-President, Mr. W. T. Jones, F.R.I.B.A., F.S.A.; Hon. Treasurer, Mr. J. T. Cackett, F.R.I.B.A.; Hon. Librarian, Mr. F. N. Weightman, Lic.R.I.B.A.; Hon. Secretary, Mr. G. T. Brown, F.R.I.B.A., F.S.I.; Assistant Hon. Secretary, Mr. G. H. Gray, A.R.I.B.A. Council Members—Mr. P. L. Browne, Mr. C. I. Greenhow, Lic.R.I.B.A.; Mr. N. E. Leeson; Mr. C. T. Marshall, Lic.R.I.B.A.; Mr. L. W. Taylor; Associates, Mr. S. F. Bestow, A.R.I.B.A.; Mr. G. E. Charlewood, A.R.I.B.A.; Mr. T. Harrison, M.S.A. Hon. Local Secretaries—Sunderland: Mr. J. Hall, F.R.I.B.A.; Durham: Mr. W. T. Jones, F.R.I.B.A., F.S.A.; South Shields: Mr. J. H. Morton, F.R.I.B.A.; Darlington, Mr. W. J. Moscrop, F.R.I.B.A.; Carlisle: Mr. G. D. Oliver, F.R.I.B.A.; Alnwick: Mr. G. Reavell, F.R.I.B.A.

## The Architects' Benevolent Society.

Third list of new subscribers, increased subscriptions, and donations since January 22. Previous lists appeared in "THE ARCHITECT" on January 28 and February 4.

NAME	New Subs.		Increased Subs.		Donations		NAME	New Subs.		Increased Subs.		Donations				
	£	s. d.	£	s. d.	£	s. d.		£	s. d.	£	s. d.	£	s. d.			
Air Ministry, W.B.3 (London) ...	4	8	6	—	—	—	Marchant, F. O. (Hankow) ...	2	2	0	—	—	—			
Allison, R. J. (London) ...	1	1	0	—	—	—	Marshall, A. (Otley) ...	3	3	0	—	—	—			
Ansell, W. H. (London) ...	1	1	0	—	—	—	Martin-Kaye, H. W. (London) ...	1	1	0	—	—	3 3 0			
Awdry, G. C. (Bristol) ...	—	—	—	—	7	0	0	Martyn, L. D. (Hongkong) ...	1	1	0	—	—	—		
Ball, C. E. (London) ...	—	—	—	—	1	0	0	Mathews, Major H. E. (Derby) ...	1	1	0	—	—	—		
Barker, R. T. (London) ...	1	1	0	—	—	—	Maut, F. G. (London) ...	—	—	—	—	1	1	0		
Bassett-Smith, W. B. (Buenos Aires) ...	2	2	0	—	—	—	Mayston, A. R. (London) ...	1	1	0	—	—	—	—		
Bates, E. (London) (two years) ...	4	4	0	—	—	—	McDonald, J. S. (London) ...	1	1	0	—	—	—	—		
Bethell, F. (London) ...	1	1	0	—	—	—	McIntosh, D. G. (Liverpool) ...	1	1	0	—	—	—	—		
Bharoocha, Sohrab F. (Bombay) ...	1	1	0	—	—	—	McLachlan, C. (London) ...	1	1	0	—	—	—	—		
Bosson, A. C. (New York) ...	1	1	0	—	—	—	Moore, L. T. ...	1	1	0	—	—	—	—		
Broad, M. C. (Montevideo) ...	1	1	0	—	—	—	Mouchel, L. G., & Partners (London) ...	2	2	0	—	—	—	—		
Bullar, E. (Rangoon) ...	1	1	0	—	—	—	Moulding, L. G. (London) ...	—	—	—	—	1	1	0		
Burnet, Sir John, Son & Dick (Glasgow) ...	1	1	0	—	—	—	Moxham, G. (London) ...	1	1	0	—	—	—	—		
Burley District Society of Architects ...	—	—	—	—	15	15	0	Nicholls, W. H. (Madras) ...	1	1	0	—	—	—	—	
Burton, D. M. (Johannesburg) ...	1	1	0	—	—	—	Northampton Association of Architects ...	—	—	—	—	5	5	0		
Cable, J. W. (Bombay) ...	1	1	0	—	—	—	Oatley & Laurence (Bristol) ...	3	3	0	—	—	—	—		
Caröe, W. D. (London) ...	3	3	0	—	—	—	Page, G. M. (Haslemere) ...	1	1	0	—	—	—	—		
Charter, J. W. (Leeds) ...	1	1	0	—	—	—	Palser, E. (London) ...	1	1	0	—	—	—	—		
Claessen, W. (Colombo) ...	2	2	0	—	—	—	Parker, E. Hadden (London) ...	1	1	0	—	—	—	—		
Clerks of Works Association (London) ...	2	2	0	—	—	—	Paton, W. M. (Dublin) ...	—	—	—	—	1	1	0		
Cornell, W. A. (Hongkong) ...	1	1	0	—	—	—	Perkins, H. (Leeds) ...	1	1	0	—	—	—	—		
Cowin, N. T. (Johannesburg) ...	2	2	0	—	—	—	Pott, W. (Belmont) ...	1	1	0	—	—	—	—		
Dallas, J. (Birmingham) (two years) ...	2	2	0	—	—	—	Price, F. G. (Stamford Brook) ...	—	—	—	—	0	10	0		
Dannatt, A. R. (Chelmsford) ...	1	1	0	—	—	—	Read, W. S. (Shanghai) ...	3	3	0	—	—	—	—		
Davidson, T. M. (Ruislip) ...	1	1	0	—	—	—	Redpath, Brown & Co. (Edinburgh) ...	—	—	—	—	50	0	0		
Davis, W. J. (Birmingham) ...	1	1	0	—	—	—	Rees & Holt, Messrs. (Liverpool) ...	2	2	0	—	—	—	—		
Delves, S. W. (London) ...	1	1	0	—	—	—	Reynolds, F. S. (Hankow) ...	2	2	0	—	—	—	—		
Denington, J. W. (Croydon) ...	1	1	0	—	—	—	Richley, N. (Durham) ...	1	1	0	—	—	—	—		
Diamant, A. St. John (Cairo) ...	1	1	0	—	—	—	Roome, W. J. W. (Greenisland, Antrim) ...	1	1	0	—	—	—	—		
Dick, R. Burns (Newcastle-on-Tyne) ...	—	—	—	2	2	0	Ross, W. A. (Bradford) ...	1	1	0	—	—	—	—		
Dixon, A. S. (Birmingham) ...	1	1	0	—	—	—	Roumieu, R. St. A. (London) ...	—	—	—	—	3	3	0		
Emley, F. (Johannesburg) ...	—	—	—	—	5	5	0	Rushton, T. G. (London) ...	1	1	0	—	—	—	—	
Farmer, J. Westbrook (Buenos Aires) ...	1	1	0	—	—	—	Russell, R. T. (Delhi) ...	2	2	0	—	—	—	—		
Fletcher, Sir Banister F. (London) ...	—	—	—	—	10	10	0	Sage, E. (Brighton) ...	1	1	0	—	—	—	—	
Forster, F. J. (Wimbledon) ...	2	2	0	—	—	—	Sanjana, N. J. (Bombay) ...	2	2	0	—	—	—	—		
Freyberg, H. (London) ...	—	—	—	—	2	2	0	Scott, J. (St. Andrews) ...	2	2	0	—	—	—	—	
Fritchley, E. W. (Coonoor, India) ...	1	0	0	—	—	—	Simpson, G. M. (Brighton) ...	1	1	0	—	—	—	—		
Gamon, C. (London) ...	1	1	0	—	—	—	Smith, J. O. (London) ...	—	—	—	1	1	0	—		
Goode, G. H. (Bedford) ...	1	1	0	—	—	—	Stewardson, R. E. (Shanghai) (two years) ...	4	4	0	—	—	—	—		
Gordon, A. (London) ...	1	1	0	—	—	—	Stucki, W. H. (Johannesburg) ...	2	2	0	—	—	—	—		
Gordon & Gordon (London) ...	2	2	0	—	—	—	Taraporewella, V. A. (Bombay) ...	1	1	0	—	—	—	—		
Greene, Major W. H. (Newfoundland) ...	1	1	0	—	—	—	Tasker, R. (London) ...	1	1	0	—	—	—	—		
Grundy, S. (Ulverston) ...	1	1	0	—	—	—	Teather, G. A. (Sheffield) ...	1	1	0	—	—	—	—		
Hobson, J. R. (Rhodesia) ...	1	1	0	—	—	—	Thomas & Jones, Messrs. (Swansea) ...	2	2	0	—	—	—	—		
Hodge, W. A. (Alexandria) ...	1	1	0	—	—	—	Thorp, J. B. (London) ...	2	2	0	—	—	—	—		
Hotz, Roland (Simla) ...	1	1	0	—	—	—	Tilden, P. (London) ...	—	—	—	—	5	5	0		
Howard, E. P. (London) ...	—	—	—	—	2	2	0	Travers, W. (Edgbaston) ...	—	—	—	—	5	5	0	
Hudson, J. (London) ...	—	—	—	2	2	0	—	Tubbs, G. B. (London) ...	0	10	6	—	—	—	—	
Ing, F. J. (Durban) ...	1	1	0	—	—	—	—	Tyler & Bricklayers (London) ...	—	—	—	—	5	5	0	
Jones, V. T. (Port Elizabeth) ...	1	1	0	—	—	—	—	Tyrwhitt, T. (London) ...	1	1	0	—	—	—	—	
Kaula, W. (London) ...	—	—	—	—	1	0	0	Underhill, C. F. (Burton-on-Trent) ...	1	1	0	—	—	—	—	
Kelley, W. (London) ...	1	1	0	—	—	—	—	Walker, W. (St. Andrews) ...	1	1	0	—	—	—	—	
Kent, I. C. (Sydney) ...	1	1	0	—	—	—	—	Wapshott, F. E. (London) ...	1	1	0	—	—	—	—	
Klingender, F. L. (Melbourne) ...	1	1	0	—	—	—	—	Ward, B. M. (Yokohama) ...	2	10	0	—	—	50	0	0
Knight, W. J. (London) ...	1	0	0	—	—	—	—	Ward, M. S. (London) ...	1	1	0	—	—	—	—	
Lenton, F. T. (Stamford) ...	1	1	0	—	—	—	—	Ward, W. H. (London) ...	—	—	—	2	2	0	—	
Lloyd, B. M. (Birmingham) (two years) ...	2	2	0	—	—	—	—	Wellman, E. J. (Johannesburg) ...	1	1	0	—	—	—	—	
Lord, G. W. (Sudan) ...	1	1	0	—	—	—	—	Wilkinson, L. (Sydney) ...	1	1	0	—	—	—	—	
Lovegrove, G. H. (London) ...	1	1	0	—	—	—	—	Wills, H. W. (London) ...	—	—	—	—	1	1	0	
Ludlow, G. W. (London) ...	1	1	0	—	—	—	—	Wilson, Capt. F. (Abbottabad) ...	1	1	0	—	—	—	—	
								Wittet, G. (Bombay) ...	1	1	0	—	—	—	—	
								Woodhouse, F. P. M. (London) ...	1	1	0	—	—	—	—	
								Worthington, C. E. (London) ...	1	1	0	—	—	—	—	

## New Books.

"Concrete Roads." Concrete Publications, Ltd. 8s. net.

THE question of the utility or otherwise of concrete roads in this country is one which is exercising the minds of English road engineers, and is the subject of considerable divergence of opinion amongst them.

The above-named publication does not profess to be other than an attempt to demonstrate that concrete roads can be successfully adopted in this country, but the introduction of this method of road construction in this island of ours is so comparatively recent that it is not to be wondered at that some of our road engineers are sceptical as to its merits.

The broad fact remains that no one method of road construction is capable of universal application under all conditions, and there is plenty of room for new ideas. Granted this contention, there can be no doubt that this work will rank with other publications on the same subject as an informative contribution to the question.

"Drainage and Sanitation." Second Edition. By E. H. Blake. B. T. Batsford.

THE author of this work claims, in his preface to the first edition, to have put forth an attempt to deal with the subject in a systematic manner, and in this he has eminently succeeded. In the fifteen chapters in which the book is divided the various questions relating to drainage and sanitation are dealt with very exhaustively, and it would be difficult to imagine how so much valuable information could be successfully set forth in a more concise manner, and at the same time be presented to the student in a more convincing form.

The work teems with information presented in a distinctly readable form, and throughout gives evidence of great care in the compilation of the mass of valuable detail set forth in its pages.



**CONCRETE "KING" PLASTER  
BLOCKS SLABS**

**WALLS PARTITIONS ROOFS**

**FIBROUS PLASTER CEILING SLABS**

*Ferro-Concrete and Glass Constructions*

**"FERRO GLASS" PAVEMENT LIGHTS**

**"KING" CONCRETE GLAZING BARS**

**J. A. KING & CO.**

**181, QUEEN VICTORIA ST., LONDON, E.C., and  
BRITANNIA BUILDINGS, LEEDS.**

**Tel: City 2213 and Cent. 773, and Leeds 22712.**

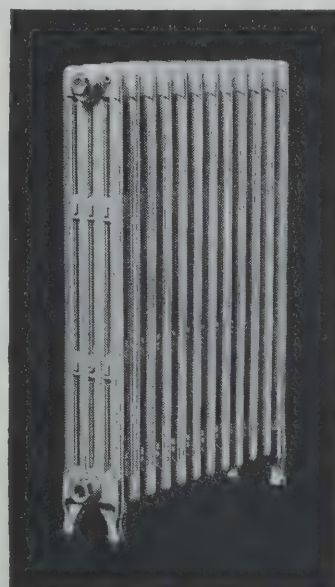
## Prompt Delivery & Reduced Prices.

Ideal Radiators and Ideal Boilers in practically all current patterns can now be supplied promptly from stock, including all heights of Ideal Classic Four-Column Radiators.

Considerable reductions have been made in prices of nearly all goods and especially in the lower heights of Ideal Radiators which are most in demand for residential work.

**IDEAL & IDEAL  
RADIATORS BOILERS**

Ideal Classic Radiators are distinguished by their graceful fluted columns which harmonise with the most artistic surroundings; they occupy thirty per cent. less floor space than other patterns, require only half the water contents and are highly efficient.



**NATIONAL RADIATOR COMPANY  
LIMITED.**

**Offices, Showrooms & Works: HULL, Yorks.**

Telephone: Central 4220. Telegrams: "Radiators, Hull."

**London Showrooms: 439 & 441 Oxford Street, W.1.**

Telephone: Mayfair 2153. Telegrams: "Liableness, London."

*Agents in Great Britain carrying stocks of "Ideal" Radiators and "Ideal" Boilers:*

**Baxendale & Co. Ltd., Miller Street Works, Manchester.**

**William Macleod & Co., 60-64 Robertson Street, Glasgow**



## Acoustics as Applied to Buildings.—I.\*

By Hope Bagenal, A.R.I.B.A.

THE principles which an architect should have in his mind when tackling any job involving the requirement of good hearing are not difficult to understand or to apply in a general way. But before studying them one thing is necessary. Speaking from experience, I do not hesitate to say that it is necessary to dismiss from one's mind the stock ideas about wires and sounding boards, about the impossibility of building one auditorium exactly resembling another, about Greek vases, about Dean Stanley whispering in Westminster Abbey; to dismiss all the stories and catchwords that are popular on the subject. Forget all those and go straight to the study of the Harvard experiments. Professor W. C. Sabine, of Harvard, was, so to speak, the Isaac Newton of the subject. That is to say, that after years of experiment it was he who evolved the law, the enunciation of which draws up the curtain upon accurate investigation.

First of all, Sabine showed that Acoustics as a science comes under quite a different category when we take into account not only actual quantitative experiments in sound propagation, but also the hall or the laboratory in which the sound is produced. Sabine, in introducing his work in person to the French physicists in 1917, says the following (reported in the communication of the "Société Française de Physique," April 13, 1917):—

Experiments made in a laboratory are seriously affected by the surrounding conditions, by the fact that the walls reflect 94 per cent. of the sound if they are wood, 96 per cent. if they are plaster, and more than 97 per cent. if they are brick.

Consequently experiments designed to measure sound under such conditions are equivalent to attempts at measuring light in a laboratory where the platform, the walls, the floor, and even the tables, are brilliant mirrors.

In short, the difficulty is even greater in the case of sound. The law of the inverse square of the distance, so often accepted in laboratory experiments in sound, does not even hold as a first approximation. In fact, the sound is often less intense at the source than at a considerable distance.

Again, there is another consideration that has been entirely omitted, the reaction of the hall itself on the source of sound. A source of sound of fixed amplitude is not necessarily a source of fixed emissive power. If it is placed in the hall in such a way as that the sound emitted is in the same phase as the sound accumulated in the hall, its emissive power is very low. If in the opposite phase its emissive power is great. It is not at all difficult to find two positions of such a source where for a given amplitude the volume emitted is ten times greater in one case than in the other.

Sabine, of course, does not say all this for the sake of adding to our difficulties. He proceeds to analyse that "reaction of the hall itself upon the source of sound," and that reaction with all its consequences is what concerns architects.

Put briefly Sabine's results may be stated as follows:—

Sound may be regarded as a form of energy.

When a fixed source of sound begins in a room two processes are set up at the same time.

First, energy is being generated at a constant rate. Second, that energy is being absorbed by all the surfaces in the room at a rate increasing with the total energy in the room until equilibrium occurs.

When equilibrium occurs, that is to say when the total absorption of the room equals the total energy generated and stored in the room, then the sound is a sustained sound.

When the source ceases the supply of energy is cut off, but the sound will continue until the total energy stored in the room is absorbed.

The length of time taken to absorb that total energy stored in the room may be great or small, but it obviously has some relationship to the size and nature of the room.

It is therefore in the nature of an index: it is called

the reverberation, and can be thought of in seconds. The relationship is this: Reverberation varies directly as the volume of the room, and inversely as its absorbing force.

It is important to think of sound as energy.

Some idea of the actual rate of expenditure of energy in producing sound has been obtained by several experimenters. Rayleigh found that in order to maintain the note of a whistle he had to supply about 66 kilogram-metres of air per hour, i.e., as much energy as would lift a weight of about 145 lb. to a height of 32 feet. Marag has calculated that in ordinary conversation the rate of expenditure is rather less—30 to 48 kilogram-metres per hour, while in a public speech it may vary from 144 to 288 according to circumstances. And the circumstances often depend upon the architect who designed the room in which the public speech is made.

When we have grasped the idea of sound as energy it is not difficult to conceive of that energy being carried outwards in hemispherical waves from a source of sound until the energy is brought into contact with every, the least, and the remotest surface in the room. Nor is it difficult to conceive of how when the source of energy ceases, the sound thus carried at a uniform rate and reflected hither and thither will continue until the energy has been, so to speak, drunk up by contact with all these surfaces.

Lastly, it will be obvious that the values of the various surfaces as drinkers-up or absorbers will have an enormous influence on the length of time the sound will continue after its source has ceased, in other words, on the reverberation. It will be obvious, too, that the larger the room, that is the greater its volume, the greater will be the number of waves and the amount of energy stored in it, and therefore requiring to be absorbed.

But that is only stating Sabine's law that the reverberation in a room varies directly as the volume and inversely as the absorbing power.

Or if we call the reverberation  $T$  seconds, the absorbing power  $A$ , and the volume  $V$ , it is equivalent to saying

$T$  varies as  $\frac{V}{A}$  or  $T = \frac{V}{A}$  multiplied by a constant.

What is this  $T$ , this reverberation, in actual experience? It is nothing less than the phenomenon that is at the root of nine-tenths of the acoustic difficulties that architects have to encounter. Reverberation is simply the element of redundancy that in so many well-known auditoria prolongs tones, drags the choruses, causes discords, blurs syllables, obliterates the ends of words, destroys articulation, besides having other indirect effects that we may examine later. Perhaps the most striking effect of reverberation is that it forces the ordinary twenty-five minutes' sermon when delivered in St. Paul's Cathedral to be cut down to at least half the number of words that can be ordinarily delivered in an ordinary sized church in the same time.

Sabine's first experiment is so illuminating that it is worth while glancing at it before we proceed. The Fogg Art Museum Lecture Theatre at Harvard was so badly acoustically that a lecturer could hardly be heard intelligibly. A rough test showed that when the room was empty the reverberation for a syllable spoken in an ordinary tone of voice was  $5\frac{1}{2}$  seconds. Now a speaker can deliver three syllables comfortably in a second, so that with a reverberation of  $5\frac{1}{2}$  seconds the original syllable would have been followed by at least fifteen succeeding syllables. When an audience was present the conditions were better but not tolerable. Sabine hit upon the idea of taking cushions of uniform size and material as units of absorbing power, and of introducing them by regular increments into the lecture-room. He found that when 486 cushions had been introduced the reverberation had been reduced to 2.03 seconds, and when 1,500 cushions had been introduced the reverberation was still further reduced to 1.14 seconds. The experiments were made with ar

\* A Paper read before the Society of Architects.



# REDPATH BROWN & CO., LTD. CONSTRUCTIONAL ENGINEERS



WORKS AND  
STOCKYARDS

LONDON.  
Riverside Works,  
East Greenwich SE.

MANCHESTER.  
Trafford Park.

EDINBURGH.  
St Andrew Steel Works.

GLASGOW.  
Pinkston.  
Office 19, Waterloo St.

BIRMINGHAM  
Office, 47, Temple Row.

NEWCASTLE ON TYNE.  
Milburn House

London City Office.  
3, LAURENCE POUNTNEY HILL.  
E.C.4.



organ pipe emitting C 512, the reverberations being measured first by ear on a stop-watch, and finally by an electric communication to a chronometer.

The experiments were continued afterwards in a special room without windows, and for each increment of cushions introduced a mean of six reverberations was taken. The cushion areas were then plotted as ordinates against the reverberations as abscissae, and the resulting curve, an equilateral hyperbola, revealed that a very simple and very important relationship existed between the two quantities.

This relationship, when by further experiments it had been expanded and checked mathematically, developed into the formula  $T = \frac{V}{A}$  multiplied by a constant K.

The constant K was found to be proportional to the volume V, and the ratio  $\frac{K}{V}$  therefore had some definite value. It was found to be 0.164 where the volume is calculated in cubic metres, and 0.05 when calculated in cubic feet. In the formula  $T = \frac{V}{A} \times K$  we know, therefore, how to find V, and we have a value for K. How can A be calculated?

A, the total absorbing power of the room, we have seen, has to do with all the surfaces in the room. We can measure those surfaces that are distinct the one from the other, measure the plaster work, the woodwork, the area of carpet, of curtains, and so on. But how shall we know how much more one surface will absorb than another?

The value of Sabine's first experiments with cushions was that he had established a standard of comparison. The cushions could be removed and other materials tried, their effect being computed as the equivalent of so many cushions. Last year Dr. Wood carried out a similar set of experiments at Cambridge with the same object in view. The pathological lecture-room at Cambridge had a reverberation of 5.2 seconds which he reduced to 1.2 seconds by the simple expedient of introducing twenty army blankets and hanging them about the walls. But obviously neither cushions nor army blankets can be called scientific units. It would not sound scientific to be asked as an architect what, roughly, was the absorbing power of the Albert Hall and to reply "so many million felt cushions or so many thousand army blankets." Also, in order that a true criterion should exist, it is necessary to have a standard intensity of sound.

These points were thought out by Sabine. Instead of cushions, one square metre of open window area was taken as unity. The standard intensity of sound was taken as average speaking-voice intensity which is the same as the intensity of an organ pipe emitting a note equivalent to a million times the minimum audible. With these standards a long series of nocturnal experiments lasting six years were undertaken to ascertain the absorbing power of the chief materials used in building, fitting, and upholstering.

The results are given in the form of tables of coefficients of absorption beginning with one square metre of open window equal to one unit.

Then if open window (imagining it is a surface) is 1, we find that one square metre of 18 in. brick in cement is 0.032, plaster on lath 0.02, wood sheathing 0.104, jute felt (1.1 c.m. thick) 0.18, carpets or rugs 0.2, curtains 0.23, audience per square metre 0.94, and so on.

A series of coefficients for over twenty surfaces were worked out. It must be remembered that they are in the nature of ratios or percentages, and can therefore be employed whether square metres or square feet are used. The method of finding the absorbing power of a room is first to measure up the various areas in the room, plaster, panelling, carpet area, curtain area, &c., then multiply each area by its appropriate coefficient, and add the products. The total absorbing power A can then be employed in the formula. Care must be taken to employ uniform units. If the volume is calculated in cubic feet the various wall, floor, and upholstered surfaces, must

be calculated in square feet, and the constant 0.05 must be used.

Sabine's coefficients do not by any means cover the whole range of building or lining materials. But they are sufficiently useful as an index of the relative values of materials for absorbing purposes. By their means it is possible to determine approximately beforehand from plans and specifications what reverberation to expect. If no coefficient can be found for a surface of one material the coefficient for another similar in structure may serve.

The absorbing properties of a material involve texture as well as surface. A porous material is more absorbing than a hard close material. The coefficient for brickwork is higher than for a hard plaster wall owing to the porousness of the bricks. No coefficient is given for a lining like bathstone or marble, so obviously a low figure, something less than plaster, could be used for approximate calculation, say 0.02. In America a very useful absorbent stoneware with a porous surface is manufactured and used very widely in modern church work. It is made to match the colour of the stonework used in the building, and is employed in vaults, domes, and pendentives. This stoneware was used first in the West Point Military Academy Chapel, and in the large Baptist Chapel in Pittsburg. Since then it has been improved, and is now manufactured with a coefficient nearly six times the value of ordinary brickwork masonry.

The most powerful absorbing factor that can be used is the audience. The audience can be calculated per person as well as per square metre. The coefficient per person is 0.44 where metre units are employed, or 6.3 where foot units are employed. Women absorb slightly more sound than men. Next to the audience, the most powerful absorbents are panels of felt, thick carpets, and curtains.

But it is necessary to consider what reverberation what value of T is suitable for different buildings. This is by no means the same for all. Requirements differ and here is a fundamental difficulty architects have to encounter. Frequently quite opposite requirements are demanded in the same building. A hall to seat four thousand people to listen to the speaking voice, will require reverberation reduced to a minimum. If the same hall is to be used for choral and orchestral concert the reverberation should be not less than two seconds. What sort of a compromise must be arrived at? Or a small hall is required for quartettes, for piano music and trios. Good musical requirements involve a room in which the factor of absorption should be supplied by the audience alone. If the same room is also to be used for the male solo voice the factor of absorption should be supplied by curtains and felt panels in addition to the audience, for the purpose of absorbing overtones. Again what sort of an attempt can be made to meet both demands?

I can only say that to understand the principle involved is the best chance of coming to the best solution of the particular problem. For the speaking voice, reverberation is reduced to a minimum, in other words, by means of absorbents, conditions similar to open-air conditions are insured, no doubt great distinctness is the result, but at what cost. The price you will have to pay is that very little sound energy will be stored in the room. A maximum of energy must therefore be constantly expended, and a speaker will have to exert himself physically to make himself heard beyond sixty or seventy feet. Some speakers like conditions of no reverberation; they are usually persons with powerful voices used to speaking in the open air, where the value of T is zero. On the other hand conditions of long reverberation, say three seconds, may be preferred to open-air conditions for a voice of small power. But the price to be paid in this case is the danger that listeners near and far may hear the sound of the voice but not the sequence of syllables; then if the voice is raised the energy stored in the room becomes still more redundant and confusion is wrought and confounded.

(To be continued.)

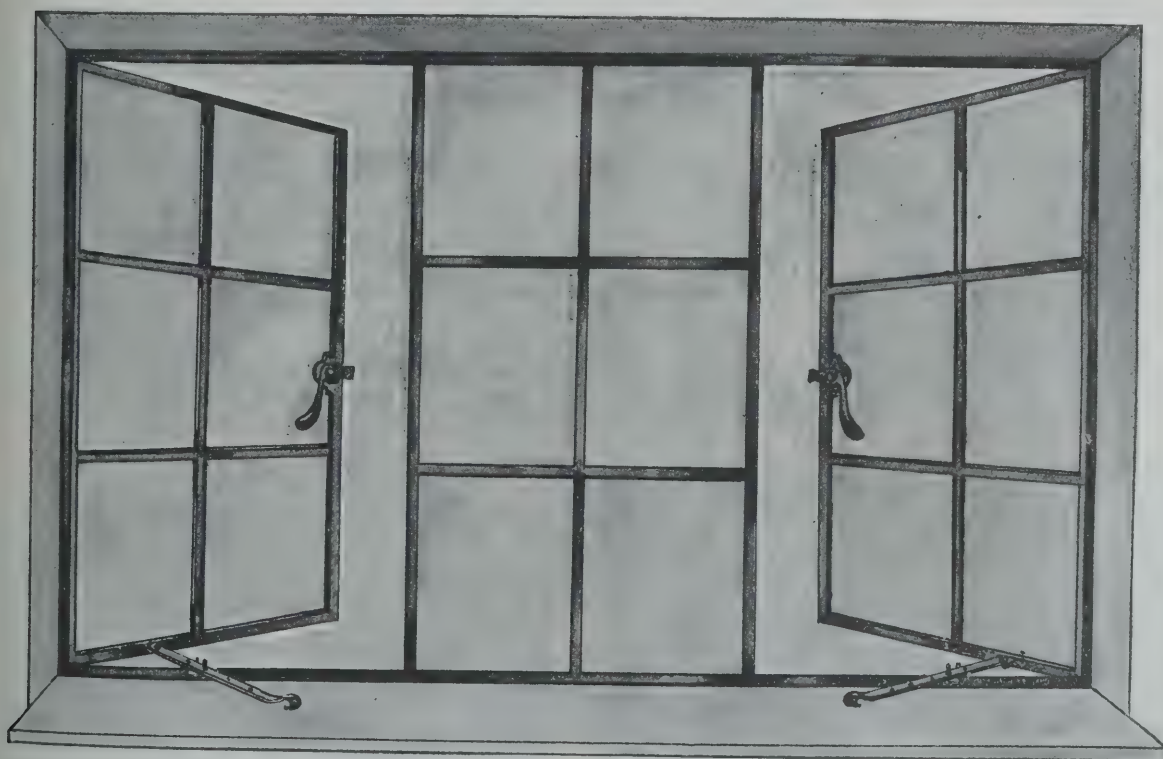


# JAMES GIBBONS, LTD.

ST. JOHN'S WORKS, WOLVERHAMPTON.



GIBBONS "WORKMAN'S" COTTAGE WINDOWS, with Side-Hung Casements to hang to wood frames.  
 "All-Open" Type in large panes. Also made with small panes.  
 All outside surfaces can be cleaned from inside.



GIBBONS "SIDE-HUNG" COTTAGE WINDOWS.

LONDON OFFICE: 15 and 16 FISHER STREET, SOUTHAMPTON ROW, W.C.1.



## Greater Chepstow.



Air View of Bulwark Village in the Wye Valley, one of the first post-war villages to be completed.

THE war has left its mark on Chepstow as on many other beauty spots of Britain. It found the quiet old market town, with its Norman castle still magnificent in its ruins on the precipitous banks of the Wye, already grown beyond its ancient walls, and reconciled to the shipbuilding and other works which had robbed the valley of its peace, but added to its prosperity. The Standard Shipbuilding Company appeared on the scene in the midst of the war (1916), and started a new shipyard for the rapid construction of various types of vessels with standardised parts largely manufactured in other parts of the country. Two years later, in the last months of the war, the Government stepped in, taking over the Standard Shipyard, as well as the older and allied works of Edward Finch and Co., adjoining it, and inaugurated the grandiose scheme of National Shipyards, destined to fizzle out with the termination of hostilities.

All these developments naturally led to a sudden and abnormal increase in the population, and the steps taken to furnish the necessary housing accommodation might easily have led—as too frequently happens when industrial concerns invade the countryside—to the permanent disfigurement of the landscape. Fortunately, the Standard Shipbuilding Company made no attempt to alter the old-world town itself, but began with a new garden city for its workmen just outside the Port wall, bounded on the southern side by the wooded heights of Hardwick

Court. The Company was also wise enough to place the whole scheme in the hands of competent architects, whose problem was to make the most of a picturesque valley with various types of houses suitable for all hands employed on the shipyard, including the clerical staff, foremen, as well as the labourers.

The Government extended the housing schemes to both banks of the Wye when they took over the shipbuilding for their ambitious plan of National Shipyards, and when this plan was abandoned at the end of the war, people wondered what would be the fate of the new garden cities. Happily the Monmouth Shipbuilding Company formed in the spring of last year to take over the Chepstow yards from the Ministry of Shipping, has also bought practically the whole of the three little towns specially built for their workpeople—Hardwick, Bulwark, both on the outskirts of Chepstow itself, and the smaller village of Pennsylvania on the Sedbury side of the river. The price paid was £400,000 for the three in all some 475 houses,—and it is now hoped that the Shipbuilding Industry at Chepstow has at length settled down to a steady course.

Chepstow's garden cities form a great nursery of ideas for modern house construction. The best lay-out of them, perhaps, is Bulwark, where the ground, compared with the more picturesque slopes of Hardwick and Pennsylvania, is level, and lends itself better to straight



33 Thorwell Road, Bulwark



Alexandra Road, Bulwark.



THE

NORTHERN

ASSURANCE COMPANY LIMITED

(ESTABLISHED 1836)

Assets  
exceed  
15,000,000

FIRE  
LIFE  
MARINE



Income  
exceeds  
£6,000,000

MOTOR  
ACCIDENT  
BURGLARY

London Head Office: 1 MOORGATE STREET, E.C. 2.

Agency Appointments granted to Architects, Estate Agents, Auctioneers, etc., in a position to influence Business.



ARCHITECTS AND SURVEYORS

who desire EFFICIENCY and ECONOMY in their work should specify B. & T. because the price is right and it is the most Efficient and Economical Reinforcement produced for Road Foundations and Concrete Structures.

Every wire has high tensile resistance, and is used to the utmost advantage.  
Every part of the metal employed bonds with the concrete and helps to distribute tension.

- There is no waste metal due to overlapping.
- The simple method of joining without affecting the line of tensional resistance saves 8 per cent. of Reinforcement.
- There are no projecting end wires liable to tear the hands and clothes.

Investigate these statements by writing to-day for price and sample to—

MESSRS. BROWN & TAWSE, LTD.

Reinforced Concrete Materials Dept., 3 LONDON WALL BUILDINGS, LONDON, E.C. 2.

Telephones: 6240 London Wall (3 lines). OR CALL AT Telegrams: "Hexameter, Ave, London."

May 21 (Gallery), "BUILDING EXHIBITION," Surveyors' Section, at OLYMPIA, APRIL 12 to 26.

Admission tickets forwarded on application.



forward planning. Like all the new housing schemes in the district, Bulwark has been constructed throughout with "Winget" blocks and slabs, and a walk through the village, where road after road of this method of construction shows every variety of plan and appearance, should remove any prejudice that may have survived regarding the architectural qualities of concrete blocks. After two years the blocks, where not lime-washed, have taken on a warm, subdued colour which harmonizes with the surroundings, and the houses look like lasting as long as the ancient town wall. The rents at Bulwark range from 9s. to 25s. per week, including rates. There are good gardens to all the houses.

Bulwark was built throughout by Messrs. Henry Boot and Sons, of London and Sheffield, who also erected the handsome military hospital at Chepstow, now used by the Ministry of Pensions chiefly for the treatment of shell-shock cases. Mr. H. E. Farmer, F.R.I.B.A., now Housing Commissioner for the Birmingham area, was the chief architect for the whole scheme.

## Spanish Cement Industry.

DURING the last few years the cement industry in Spain has increased very considerably, and new factories have been constructed on the most modern lines for manufacture by what is known as the "dry process." According to the latest report from our Department of Overseas Trade the output for 1919 is given as approximately 300,000 tons, of which 75 per cent. is probably Portland cement. The principal factory is that of the Compañía General de A.y F. Asland, of Barcelona, with an estimated annual output of 200,000 tons. Other important factories are the Cementos Portland, S.A., Pamplona, and Compañía Anglo-Española S.A., Madrid.

Rotary kilns are mostly used. The Asland Company is reported to be the only company manufacturing high quality cement suitable for Titanic cement construction and hydraulic works. There should be an increasing demand for cement for the last-named enterprises, which are receiving the serious consideration of the Spanish business men. Very little cement is exported; in 1919 the quantity was 20,000 tons. The principal exporter to Spain is France, which supplies what is known as white cement, used for the manufacture of tiles and mosaics, which are found in so many Spanish houses. Under a Royal Decree of November 1920 the import duty of 50 centimos per 100 kilogrammes on cement has been removed.

## Housing News.

THE Housing Commissioner for Yorkshire has objected to the York Housing Committee providing electric lamps and shades in their houses on the Tang Hall estate, York. The Committee have requested him to reconsider his decision.

THE Middle Ward District Committee of Lanarkshire gave approval at its last meeting to a recommendation that an additional sum of £750,000 should be borrowed for the purpose of meeting the cost of additional housing schemes, for which tenders had been received. The new schemes provide for the erection of houses at Coronation Road, Torbathie, Netherton, Ashgillhead, Netherburn, Caldercruix, Greengairs, Bargeddie, Broomhouse, and Harthill, with a total of 628 houses.

## General.

THE Kincardineshire Education Authority have caused plans to be prepared for an intermediate school which it is proposed to erect in Laurencekirk at a cost of £32,000.

MR. R. G. WHITLEY, of Bentley, Doncaster, has been appointed county surveyor of Flintshire at a salary of £700. There were about seventy applicants.

ALDERMAN SIDNEY FLAVEL has been reappointed to be Vicar's Warden of Leamington Parish Church for the thirty-seventh successive year.

MR. GEORGE M. BRAND, architect, Glasgow, has prepared a scheme for the proposed conversion of the "Royal D Veterinary College" in Clyde Street, St. Andrew Square, Edinburgh, into a picture house to accommodate between 1,300 and 1,400 people.

It is estimated that in the current financial year public works and buildings will cost £12,917,443, a net decrease on the total for 1920-21 of £1,241,301. It is proposed to expend approximately £205,000 on the provision of memorials in Belgium (£105,000), France, Gallipoli, elsewhere. Only £20,000 is, however, required in 1921-22 to cover cost of design, competition for battlefields and other memorials, incidental expenses, preparation of sites, and erection of a memorial in Brussels.

## Trade Notes.

THE British Portland Cement Manufacturers, Ltd., held their tenth ordinary general meeting at River Place House, Finsbury Circus, E.C., on April 12, at 12 o'clock. The trading profit for the year ended December 31, 1920, amounts to £558,618, and the net profit is £323,406. A sum set aside for general depreciation is £150,000. Ordinary dividend to be recommended for payment is 15 per cent., less income tax, leaving £181,477 to be carried forward.

A MEETING was recently held at the works of Messrs. Waygood-Otis, Ltd., Falmouth Road, London, to wind up the affairs of a Fund which was started in the early days of the war to provide assistance for employés and their families who might suffer in connection with the war. The money was raised by collections in the offices and works, and reached the total sum of £1,014 which, with interest on investments, allowed of a distribution of £1,097 13s. This money was expended in giving assistance to men who were wounded and to the widows and orphans of those who fell in the war. The expenses amounted to only £2 1s. 4d. for postage, the whole of the work having been done voluntarily by the Committee who carried out this very successful enterprise.

DUST bins which are hygienic, easily handled and constructed to stand hard wear and tear, should form part of the equipment of all well-conceived housing schemes. To illustrate a special design manufactured by Messrs. W. Butterfield, Limited, of Shipley, Yorks. In the case of many galvanised bins, body denting, due largely to the bin coming in contact with the sides of dust carts, is a common defect, the fact that such bins are made with plain sides being largely responsible for this result. The "Butterfield" bin is fitted with a 1-inch by  $\frac{1}{8}$ -inch band round the top and



a 2-inch by 16-gauge hoop round the bottom, and the bottom being recessed and riveted right through, a strong hoop thereby formed, adding materially to the strength and resisting power of the bin. The lid is also stamped in one piece, the whole forming an exceptionally strong bin. Local Authorities would do well to obtain a sample bin from the makers.



## CONTENTS:

The Egyptian Hospital Competition	PAGE 259	Thatch.—I. (Illustrated)	PAGE 265
Illustrations	260	London County Council New Elementary School, London	268
Notes and Comments	260	Fields, Hackney	269
The London County Council's Newer Schools	261	The Building Exhibition, Olympia	280
"The Architect" Fifty Years Ago	261	Devon and Exeter Architectural Society	282
London Art Galleries	262	Forthcoming Events	282
Art News of To-day	262	Competition News	282
Faults of Modern Architecture	263	Housing News: General	282

## The Egyptian Hospital Competition.

WE have before us the conditions of the competition which is being promoted by the Egyptian Government for the Qasr El 'Aini Hospital and School (new buildings). The assessor appointed is Mr. John Simpson, whose decision will be final and binding in both stages of the double competition to be instituted. The authors of the designs selected in the preliminary competition will be invited to submit designs in the concluding or final competition, and will receive an honorarium of £500 (Egyptian), while the author of the design placed second will receive an additional £500 or £1,000 in all. But should the Government decide for any reasons not to adopt the design placed first by the assessor the Government may, with the approval of the assessor, select another design, and proceed with it, as if it had been the design first selected, and in such case the author of the design placed first shall receive no other remuneration than the honorarium mentioned. This does not seem to us to be equitable, and we are surprised that the President agreed to the clause. It may be pointed out that owing to complex changes which are taking place the Egyptian Government can no longer be considered as acting under British advice, but may be held to be an independent oriental State. Should the author of the design finally selected not receive instructions to proceed with the work within a year the author of the design is to be paid £10,000 (Egyptian). The date for delivery of drawings is October 3, and drawings are to be despatched to Cairo. Questions relating to the competition are to be addressed to the assessor on or before June 6. Application for copies of the conditions are to be made to the Secretary of the R.I.B.A., accompanied by a draft for £3 (Egyptian) or its equivalent. We are surprised that the President does not discourage the obsolete and absurd custom of demanding deposits for conditions which the promoters of a competition should be glad to send free if they want designs from architects. The drawings required consist of a block plan to a scale of 1:1000; and plans, sections, and elevations of the proposed buildings to a scale of 1:400,

together with a descriptive report. The building is to consist of two divisions, male and female, the latter being described as the Harem Division. The accommodation of the former is to consist of the following sections:—

## A. MALE DIVISION.

- a. Surgical wards and accessories (550 beds).
- b. Operation theatre.
- c. Medical wards and accessories (250 beds).
- d. Clinical instruction.
- e. Central pharmacy and sterilisation.
- f. Reception and casualties.
- g. Radiology.
- h. Isolation wards and accessories.
- i. Central kitchen and dining-rooms.
- k. Mortuary and post mortem.
- l. Laundry and disinfection.
- m. Medical school and pathology.
- n. Dental school and clinic.
- o. Steward and storekeeper.
- p. Power house and plant.
- q. Small mosque.
- r. Administrative offices.
- s. Shelters for tuberculous cases.
- t. Resident and housekeeper's quarters.

## B. HAREEM SECTION.

- a. Surgical wards and accessories (325 beds).
- b. Operation theatre.
- c. Gynaecological operation theatres.
- d. Medical wards and accessories (100 beds).
- e. Isolation wards.
- f. Infant welfare.
- g. Sisters' home.
- h. Staff nurses' and probationers' home.
- i. Extern. work.

## C. OUT-PATIENTS' DEPARTMENT.

- a. General, surgical, and medical.
- b. Shelters for anthelmintic cases (male and female).

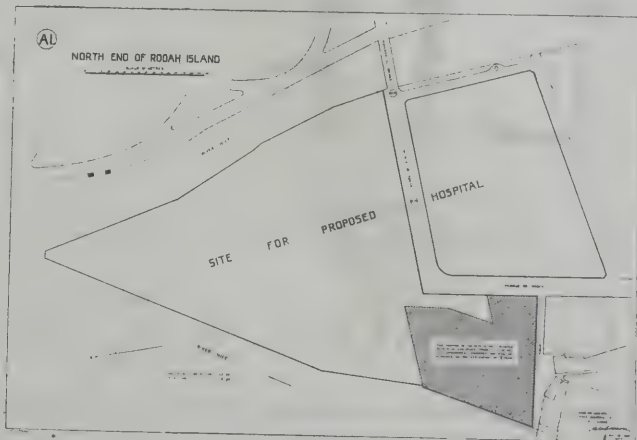
## D. STUDENTS' HOSTEL AND CLUB.

## E. DIRECTOR'S HOUSE.

Detailed information as to the requirements of each section is added, together with notes of the local conditions, construction, and materials, while we add small blocks showing the site, our object being to enable our readers to make up their minds whether they care to compete or not.

The scheme is an immense one, but whether the

CAIRO AND ENVIRONS





outcome of the competition is satisfactory or not entirely depends on the judgment of the assessor and the intentions of the Egyptian Government, and, as we have indicated, some unsatisfactory loopholes have been left open. We think also that a competition of this importance should be assessed by a jury of architects rather than by a single assessor,

but, whatever may happen, we hope for a better outcome than that of the Brewers Company's Competition for a licensed house. We could not say without closer investigation whether the conditions are or are not drawn up more clearly and reasonably than those we have recently commented upon, without sending a draft for £3 (Egyptian).

### Illustrations.

ILLUSTRATIONS OF THATCHED BUILDINGS. See Article by CHARLES G. HARPER, page 265.  
 RECENT SCHOOL DEVELOPMENTS, LONDON COUNTY COUNCIL. G. TOPHAM FORREST, F.R.S.E., F.R.I.B.A.  
 (Architect to the Council). (See pages 261 and 268).  
 LONDON COUNTY COUNCIL LONDON FIELDS ELEMENTARY SCHOOL, HACKNEY. G. TOPHAM FORREST, F.R.S.E. F.R.I.B.A.  
 (Architect to the Council). (See page 268).

### Notes and Comments.



A SUGGESTION FOR A WAR MEMORIAL. By THOMAS MASON.

#### A Novel War Memorial.

MR. THOMAS A. MASON has sent us an illustration of a novel war memorial, of which we give a reproduction. It takes the form of a number of terraced galleries, with steps at intervals, the tiers ascending from walls which commemorate the successive years of the war to a raised platform, the containing walls of which stand for the last year of the war, while space is given on the upper platform for a building or monument to commemorate the final peace. The walls would afford space for bas-reliefs, representing the great incidents of the war and the names of the fallen. Mr. Mason tells us that he originally worked out his scheme for a site of about eleven acres, but that it could be modified to suit a site of not more than three acres in extent, while the monument would form a public garden and open space. The idea is both novel and interesting, and the terraces and steps would afford opportunity for much architectural expression. Naturally the form in which the project is indicated is suggestive of an idea rather than a considered and final design, but we like the suggestion underlying it, and consider it is one which, carefully thought out and considered, might be made extremely effective, and should be glad to hear that a public authority or millionaire would undertake its realisation in structure. It suggests an Assyrian origin, though we are told its author had no ancient prototype in his mind.

#### Luxury Buildings.

COMPLAINT is being made by the correspondent of a Liverpool paper that it is useless for the Liverpool Corporation to bar the erection of "luxury buildings" when adjoining authorities impose no restrictions, and we think the objection is a reasonable one. As things stand the "luxury building" is banned in some localities and permitted in others, a position which is absurd and should be met by the withdrawal of all restrictions. We all know that the Government found it impossible to define what a "luxury building" was, and evaded their responsibilities by thrusting the task of discrimination on local authorities, a position which has given rise to ambiguity and doubt. In this, and other matters connected with housing, the authorities should either have taken their courage in their hands and made one law for the country or should have let matters alone. It is unfair because a man wishes to build in a Socialistic-Radical authority's district that he should be met with

greater restrictions than elsewhere. Now that the whole structure of State housing is tumbling to the ground we must hope for the early abolition of these anomalies, which do no one any good and serve no useful purpose.

#### Higher City Buildings.

A DEPUTATION from the London Building Act Committee of the Royal Institute of British Architects having attended before the City Lands Committee of the City Corporation and presented their proposals for increasing the height of buildings in London, the City Lands Committee afterwards passed a resolution expressing "sympathy with the views expressed that buildings in the City of London should be allowed to be erected to a height of 120 feet, with two storeys in the roof, subject to the questions of conditions of health and protection from fire being properly considered."

We are glad to see the question of the advisability of building higher in the City of London raised, but at the same time it is obvious that unless the law of ancient lights is to be very considerably modified in the near future very little can be done. Hopes were held out at the R.I.B.A. some years ago that the subject should be dealt with, but, in common with other reforms, consideration of the subject seems to have been dropped.

#### Norwich Cathedral.

FROM the local press we learn that the cathedral authorities at Norwich are anxious to "restore" the cathedral, such restoration taking the form of a new "Norman" chapel at the east end. If this is so we should like to know what architect of repute has been consulted, for we do not believe any able or experienced architect could be found who would not condemn the proposal. We can, as the best of our modern work proves, produce good modern work which will compare with the best fourteenth- and fifteenth-century work, but the idea of building in the style of the eleventh or twelfth century, when the masons' craft was in its infancy could only appeal to a type of amateur. We are not surprised that the Secretary of the Society for the Preservation of Ancient Buildings has taken up the cudgels, and has said if such things are to be it was time that our churches and other monuments were put under the control of Parliament instead of the ecclesiastical society. Meantime we should like to know what the diocesan architect has to say on the proposal.







BOAT LANE, WELFORD-ON-AVON.



THE "WAGGON & HORSES," BECKHAMPTON.





OVER WALLOP.

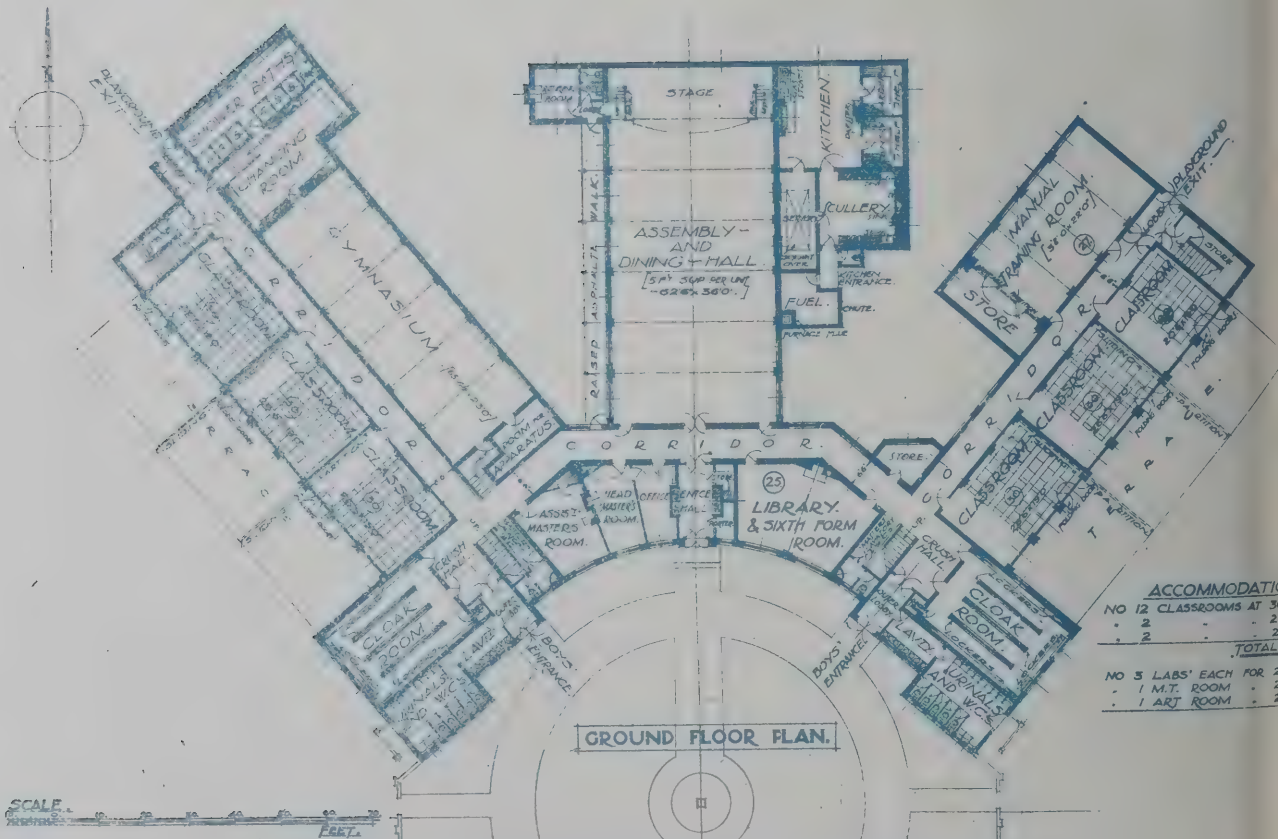
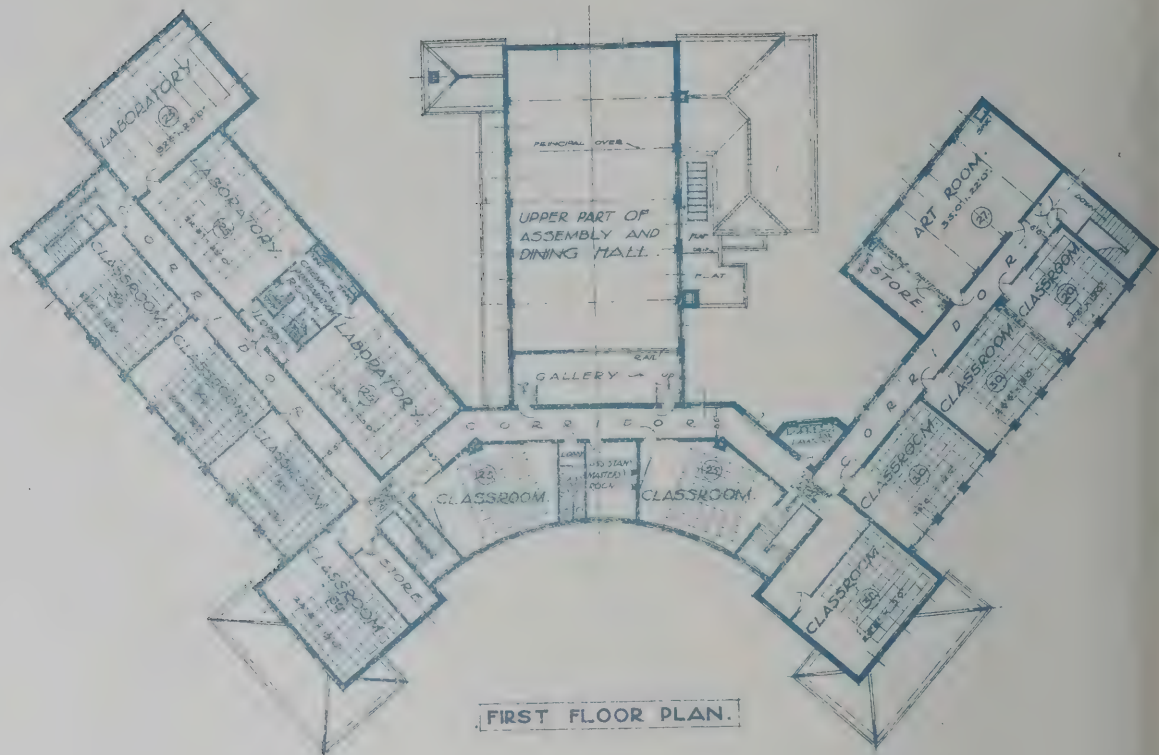


OLD COTTAGE ON THE BEACH, CHESIL, ISLE OF PORTLAND.



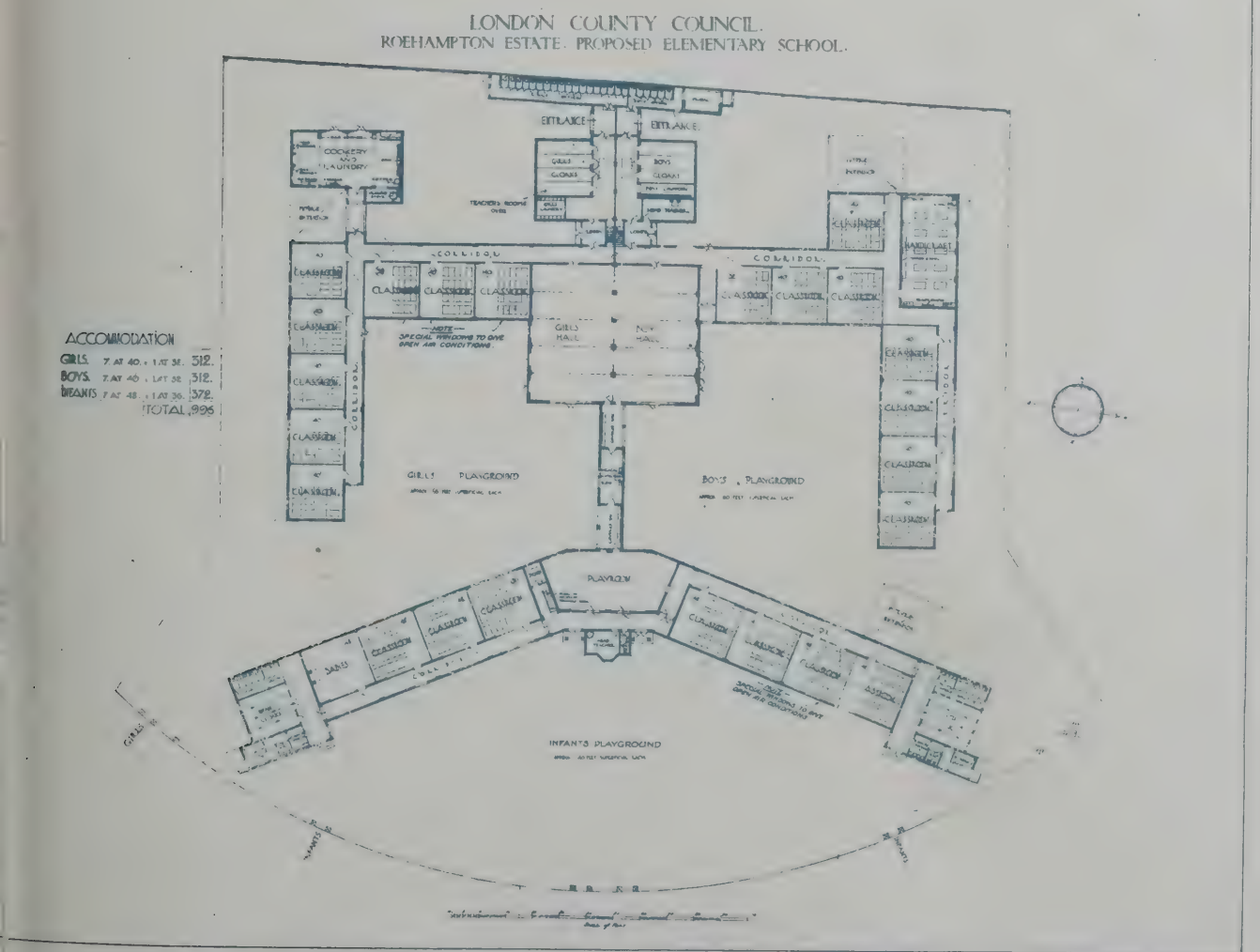
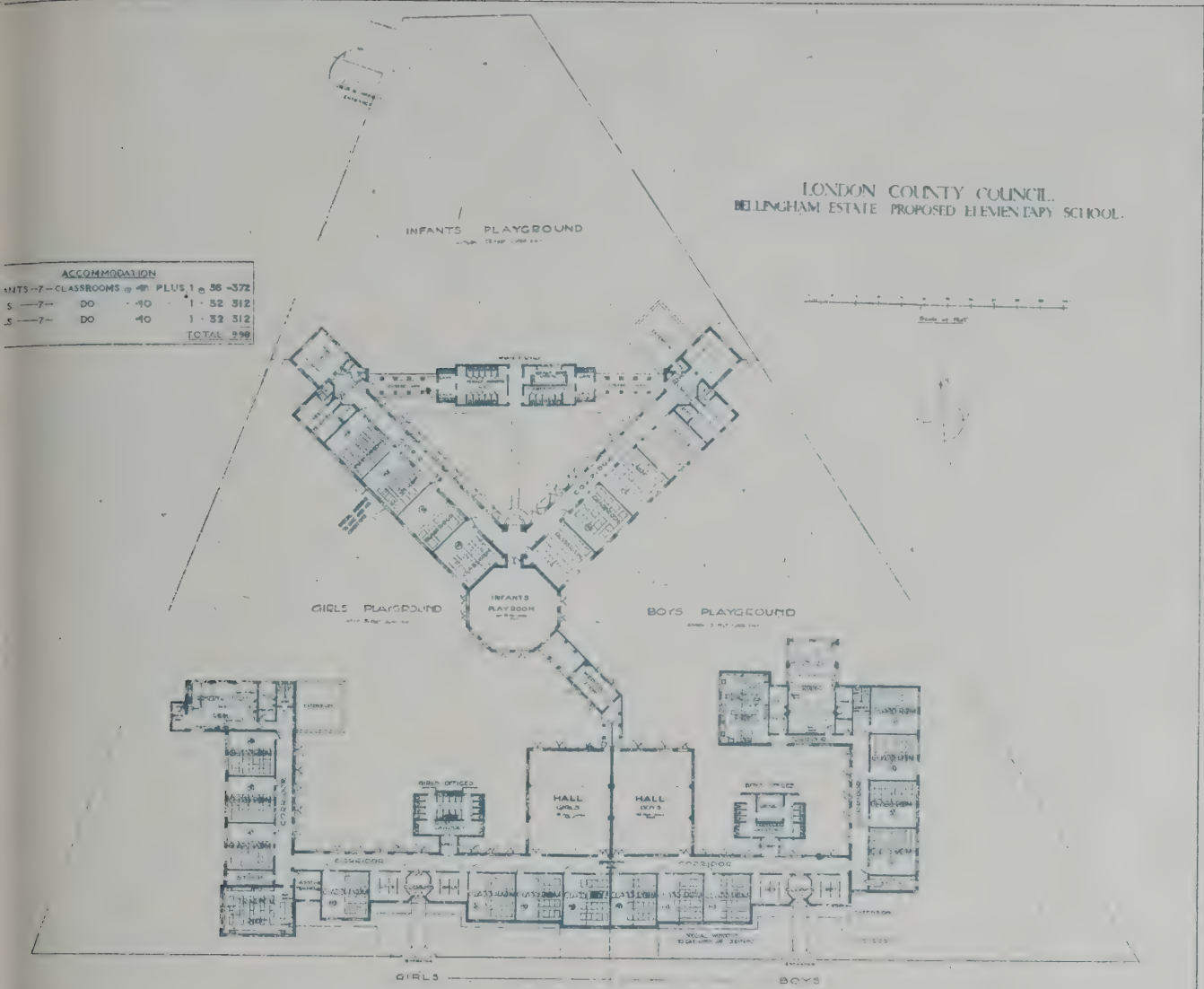






LONDON COUNTY COUNCIL.  
PROPOSED NEW SECONDARY SCHOOL FOR BOYS.  
DUCANE ROAD HAMMERSMITH.





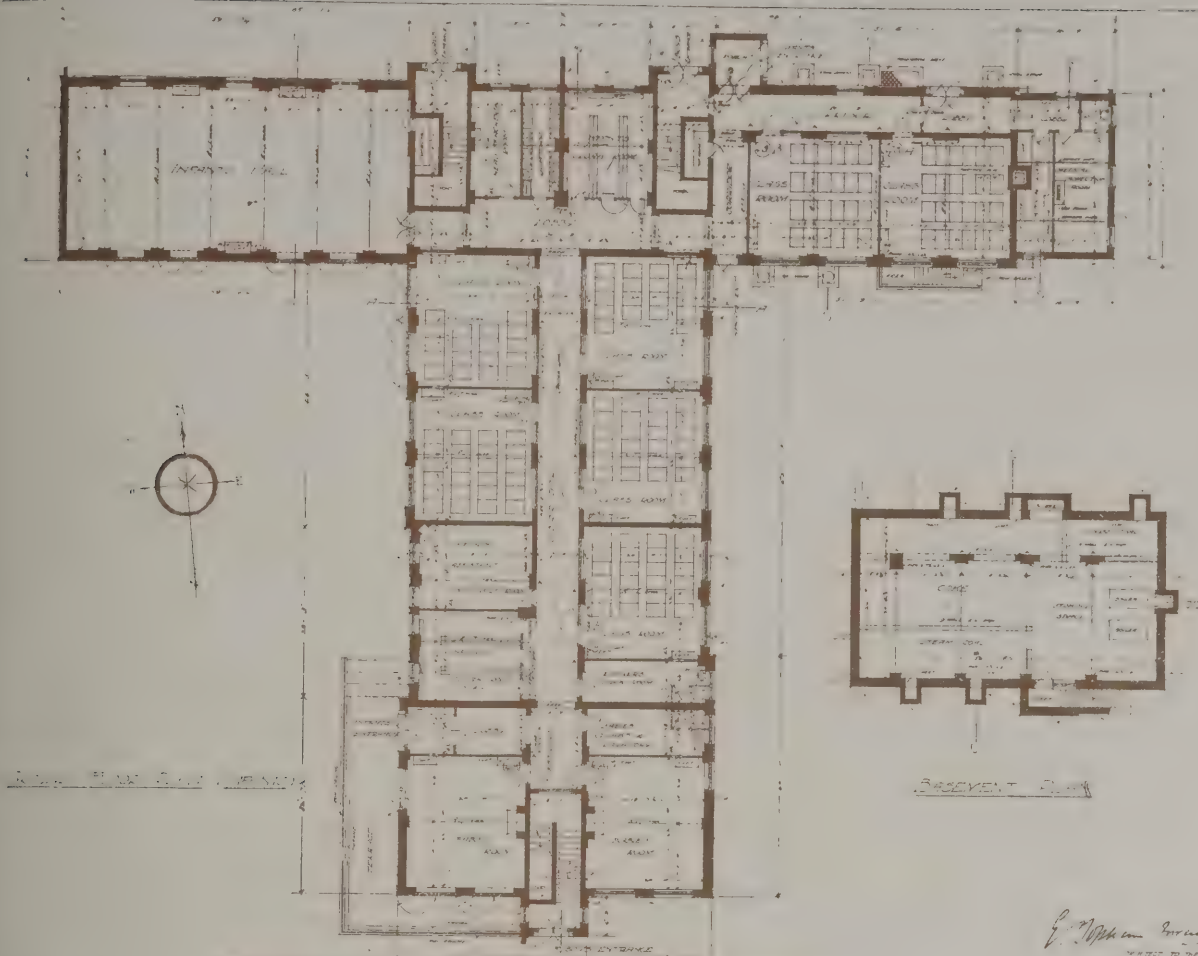












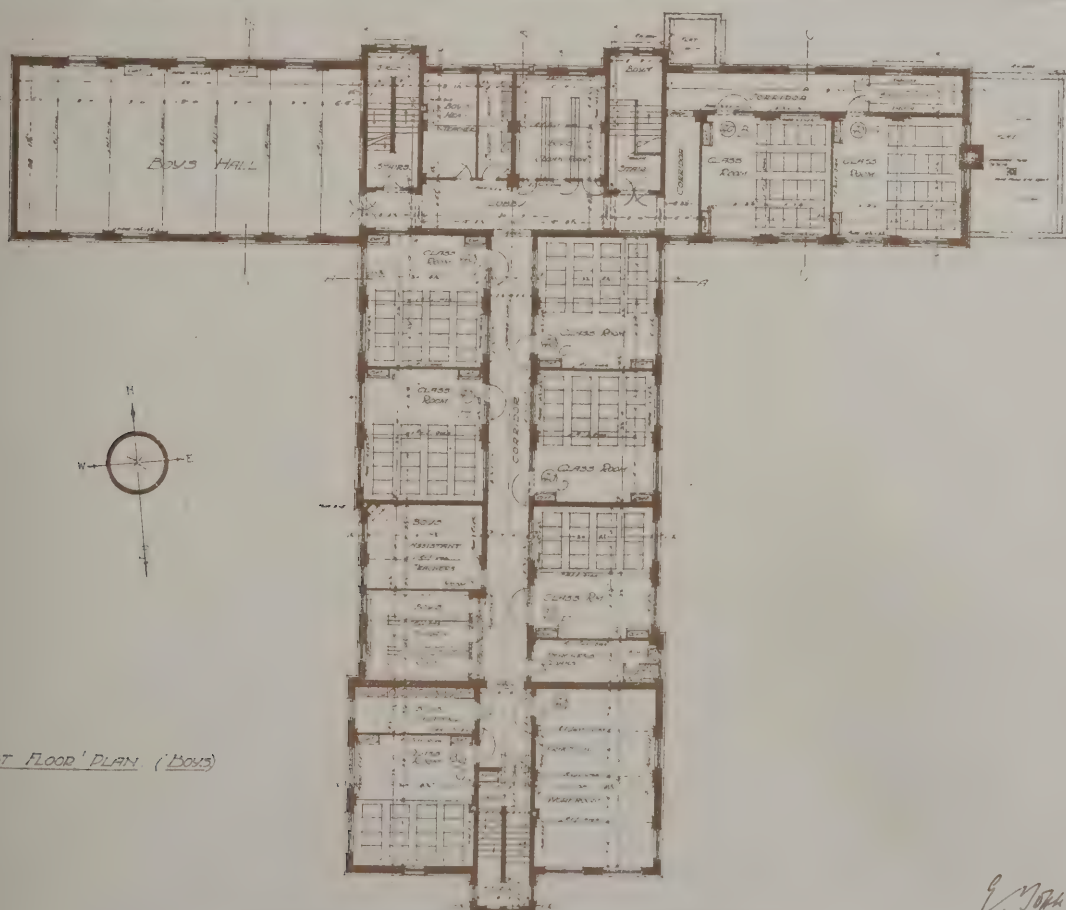
C.C. LONDON FIELDS ELEMENTARY SCHOOL (HACKNEY 5) REBUILDING

WORKING DRAWING No. 2.

SHEET No. 25

LONDON COUNTY COUNCIL ARCHITECTS' DEPARTMENT  
SCHOOL DRAWING  
JUN 1921  
DRAWN BY J. H. B. & J. H. B.

*G. Topham Forrest*



FIRST FLOOR PLAN (BOYS)

C.C. LONDON FIELDS ELEMENTARY SCHOOL (HACKNEY 5) REBUILDING

WORKING DRAWING No. 3.

SHEET No. 26

LONDON COUNTY COUNCIL ARCHITECTS' DEPARTMENT  
SCHOOL DRAWING  
JUN 1921  
DRAWN BY J. H. B. & J. H. B.

*G. Topham Forrest*

LONDON COUNTY COUNCIL LONDON FIELDS ELEMENTARY SCHOOL, HACKNEY.

G. TOPHAM FORREST, F.R.S.E., F.R.I.B.A., ARCHITECT.

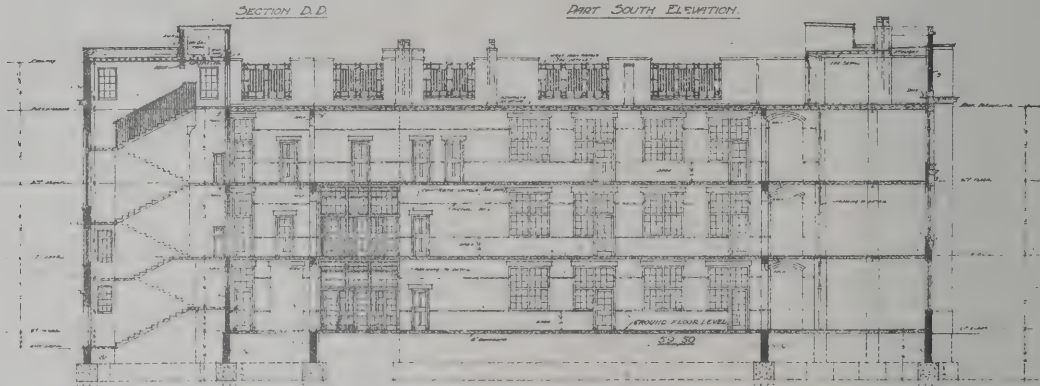
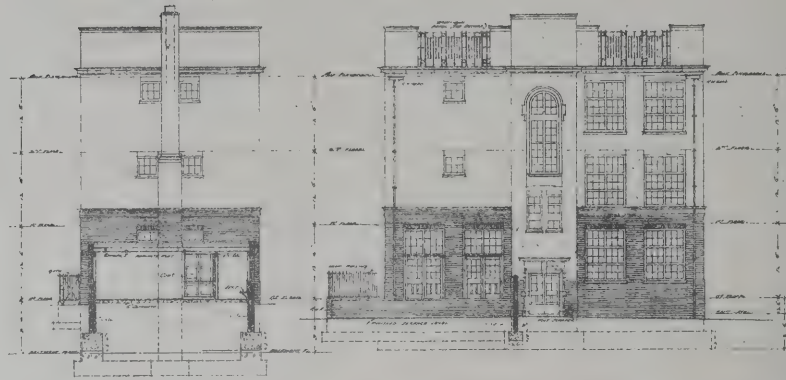
ARCHITECT TO THE COUNCIL.

PHOTO-LITHO, SPRAGUE-HAYCOCK (PRINTERS) LTD. 69 & 70, DEAN STREET, LONDON, W.1







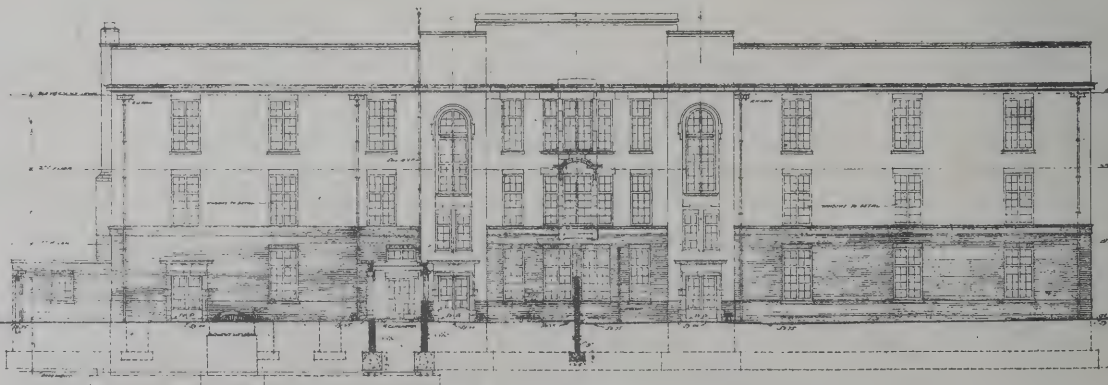
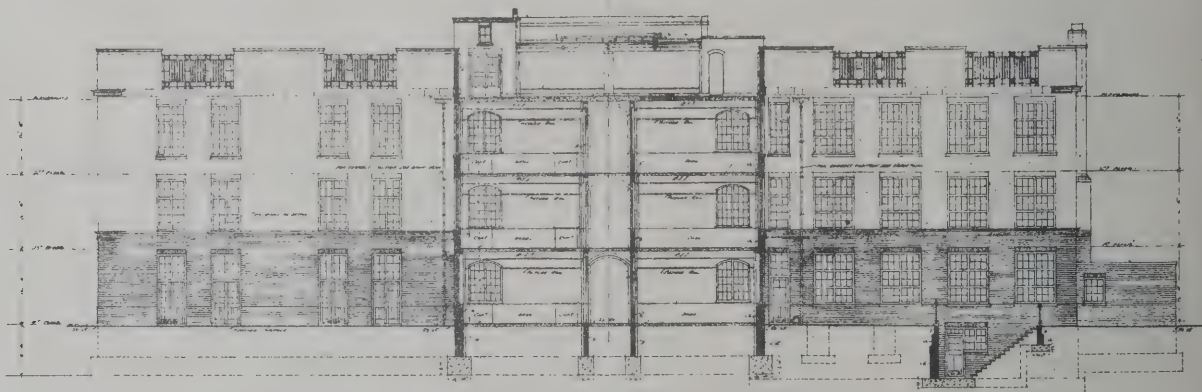


L.C.C.

LONDON FIELDS ELEMENTARY SCHOOL. (HACKNEY. S.)  
REBUILDING.

WORKING DRAWING. SHEET NO.  
178 7. 30.

LONDON COUNTY COUNCIL  
ARCHITECTS DEPARTMENT  
SCHOOL'S DRAWING  
DATE: 12.10.21  
APPROVED BY: [Signature]  
DRAWN BY: [Signature]



L.C.C.

LONDON FIELDS ELEMENTARY SCHOOL. (HACKNEY. S.)  
REBUILDING.

WORKING DRAWING. SHEET NO.  
178 6. 29.

LONDON COUNTY COUNCIL  
ARCHITECTS DEPARTMENT  
SCHOOL'S DRAWING  
DATE: 12.10.21  
APPROVED BY: [Signature]  
DRAWN BY: [Signature]

PHOTO-LITHO. SPRAGUE-HAYCOCK (PRINTERS) LTD. 69 & 70, DEAN STREET, LONDON.

LONDON COUNTY COUNCIL LONDON FIELDS ELEMENTARY SCHOOL, HACKNEY.

G. TOPHAM FORREST, F.R.S.E., F.R.I.B.A., ARCHITECT.

ARCHITECT TO THE COUNCIL.









## The London County Council's Newer Schools.

(See Inset Illustrations.)

WE give from the London County Council's publication on the Education Act of 1918 some typical plans of proposed schools, which are very interesting as showing the great changes which have taken place in school planning since the days in which all our efforts were concentrated on so planning the central hall that every class-room opened out of it. The London County Council give a brief and interesting account of the changes in school planning, which we give below as it serves to bring home to us the ever-varying standards by which schools have been judged within a comparatively brief period of time: "The modern planning of elementary school buildings in London has been in course of evolution since 1870. The most interesting development has been the introduction of a hall in each department, so planned that it can be used for assembly, singing, drill, &c., without causing disturbance to the classrooms in close proximity to the hall. In the early 'seventies there was little professional knowledge of the requirements of a good school, and the building rules prescribed by the code were as elementary as the schools to which they were applied. The defects in schools of that time were that the staircases were long, steep, narrow, and ill-lighted; cloakrooms were not provided or were insufficient; the lighting of the classrooms was chiefly from behind the children; and most of the rooms were used as a means of communication to others. In addition, the sites were small and the playgrounds inadequate. The dominant idea of the building was that of a central schoolroom holding several classes, supplemented by a moderate number of classrooms.

About 1878 the School Board for London adopted the policy of planning schools with separate classrooms to accommodate sixty children, as against the eighty then allowed by the code, and at this time also the Education Department raised the floor area in senior departments from 9 square feet to 10 square feet per child. The basis of senior planning from that date was the provision of senior classrooms to accommodate sixty with a minimum area of 10 square feet per child.

The School Board had built one or two schools, which lent themselves to the arrangement of separate classrooms and a central hall, and experience of these schools pointed to the desirability of having more room outside the classrooms. An experiment was accordingly made in the direction of classrooms arranged on either side of a central corridor running practically the whole length of the building. In order to combine teaching with the occasional use of a large room for collective purposes, the School Board erected schools of two further types. In one of these there were large halls available for boys and infants; the other type was a development of the central-corridor type, flanked by classrooms.

In 1884 the first three-storey school was opened, planned with halls for all three departments, and in 1885 thirty-two schools were opened, nearly all of which were provided with halls, or so planned for enlargement that halls could be added at a later stage. In 1891 the Education Department recognised the desirability of a hall to the extent of recommending the Local Government Board to authorise a loan of £1 per square foot of the hall floor space. With this concession the School Board provided halls in all new elementary schools.

In 1883 the School Board began to build schools in which left-hand lighting was provided in the classrooms, and this is now regarded as essential.

In 1901 the School Board decided that, in order that no class should contain more than fifty scholars usually present, or sixty on the roll, in new schools, the rooms should be, as a rule, planned for forty, forty-eight, fifty, and that not more than one or two rooms should be planned for fifty-six and sixty.

The principal characteristic of the schools erected by the School Board during its last few years, and of the schools erected by the Council between 1904 and 1909,

may be described as compactness in planning, the hall being used as a means of communication with classrooms, and corridors being avoided as far as possible. Teachers' rooms were usually placed on mezzanine floors over the cloakrooms.

About 1910 various education authorities in the country were desirous of planning the halls so that their use for singing and drill would not disturb the work in the adjoining classrooms, and with this object schools were built in which no classrooms opened off the hall. The Board of Education supported this view both in respect to elementary and secondary schools, and in their regulations of 1914 urged that the hall should be so placed as not to disturb the work of the classrooms, and that, from the point of view of ventilation and freedom from dust, classrooms should not open directly from the hall. At the same time more careful consideration was given by the Council to the aspect of the classrooms, with the object of securing the access of direct sunlight. Teachers' rooms were also provided on the general floor level, and not on mezzanine floors. In addition, provision was made for alternative means of exit from all departments. A further development during recent years is the provision in boys' and girls' departments of 'practical workrooms,' in which elementary instruction in science, needlework, &c., is given. The changes indicated have resulted in a more extended type of building, of which the plan of Hillbrook Road School, Tooting, is given as an example.

In 1912 an agreement was made with the Board of Education that maxima of forty and forty-eight should be adopted in the Council's schools for senior and infants' departments respectively. All new schools are now planned to give effect to this agreement, and a number of old schools have been remodelled on these lines.

An important development in the planning of schools is the provision of classrooms on the "open-air" system. In a number of the Council's schools casement windows opening as doors to the floor level have been introduced, while other schools have been provided with windows specially designed to give a thorough circulation of air throughout the classrooms.

The planning of secondary schools has not shown as much variation as that of elementary schools, as the regulations under which secondary schools are built have remained fairly constant up to the present time. There has, however, been a change of view as regards the halls in secondary schools, similar to that in connection with elementary schools."

[We sometimes feel that either we should be content to forgo the continual new experimental stages in school designing, or alternatively that schools should be frankly constructed as temporary buildings. The probability seems to be that even when we have acted on the last-expressed opinion of the architectural expert we have but provided him with a platform for a new departure which will render our work unavailing. And the success of a school or educational system must in the end depend almost entirely on the human material—teachers and taught—given, of course, reasonably good and well-planned accommodation.—ED.]

## "The Architect" Fifty Years Ago.

APRIL 15, 1871.

IN consequence of persons desirous of building or of altering buildings neglecting to deposit plans at the borough surveyor's office for the approval of the Leeds Corporation before such buildings or alterations can be legally made, the committee in charge of the matter have resolved to take proceedings against all persons not complying with the by-laws after May 1 next. It is also notified that, though the buildings erected may be unobjectionable, and would have been approved of if they had been previously submitted to the committee, the neglect to deposit plans and to obtain such approval will be considered an offence against the by-laws.

THE Governors of the Retsford Hospital have decided to proceed with the erection of a new building on the North Road at a cost not exceeding £9,000.



## London Art Galleries.

(All rights reserved.)

ON Wednesday, April 6, was opened at Colnaghi's Galleries in New Bond Street an exhibition of water-colour drawings by Muirhead Bone and D. S. MacColl, as well as some examples of bookbinding by Miss MacColl. In his water colours here Mr. MacColl keeps his colour in flat clean washes, with very often the pencil work left to show through; but the colour is good, notably in his fine treatment of clouds in "Windover," and the drawing is careful throughout. This comes out in the architectural details, such as the buildings in "La Lieutenantance, Honfleur," and the fine study of "Tewkesbury Abbey"; though, of course, this artist can scarcely pretend to such mastery of difficult drawing as is shown here by Muirhead Bone in his "The Pope's Garden, Rome," and "The Casino, Dieppe." The work of the two exhibitors is sandwiched here in rather a distressing way, for we have to keep jumping from one to the other; we come back, for instance, to Mr. MacColl in his fine drawing of boats in "The Rother" and his poor and very slight "Fennel," then to Muirhead Bone in the "Grand Fleet," seen from Rosyth, to MacColl again in another slight sketch of pencil and wash "Rain on Padstow," and "April Storm," then again to Muirhead Bone's fine drawing of "Three Cranes, Rouen." The designs of the bookbinding exhibited are also by Mr. MacColl.

The same day, April 6, saw the opening at the Greatorex Galleries of an exhibition of original etchings by Muirhead Bone, D. Y. Cameron, James McBey, Anders Zorn, Troy Kinney, Leslie Mansfield, William Walcott, and other artists. It will be seen from the above names that this covers a large field; but this is really a very well selected exhibition, with plenty of interest and variety. Taking figure work first we have Blampied in such vigorous work as his "Thunderstorm," with the cattle and their herdsman rushing for safety or his "Sunday Morning Bathers," nude figures of men riding their horses into the sea; we have Anders Zorn in his self-portrait of 1916, and his unequalled studies of bathers ("Dal River" and "Three Sisters"), and Troy Kinney, whose etchings of dancing girls, very delicate in drawing and suggestive of movement ("Roshanara," "Nymph," "Zephyr," and "Swallows") are, I understand, making now quite a "furore" in the States, and deserve their success.

Architecture receives attention from James McBey in his finely spaced "Alcantara Bridge, Toledo" and "View from the Gate, Tetuan"; from Muirhead Bone; from John Mathieson; from William Walcott in his "House of Sallust" and his delightful studies of Venice ("Library of St. Mark," "Piazza, San Marco") in which the delicate etching suggests rich colour; and lastly, by Leslie Mansfield in his "Bridge Builders," "Destruction of Louvain," and "Buildings, Old and New," one of his best works here. Lastly in landscape we find this artist's "On the Alde," with its horizontal lines and broad sweep of sky, with John Mathieson's "On the Forth" and "Highland Loch."

Brighton, with the quick and easy means of access (apart from strike interferences) at her disposal, comes almost within the orbit of London exhibitions; and I shall need no apology for mentioning here the excellent memorial exhibition of oil paintings by the late Alexander Fuller Maitland being exhibited in the Brighton Public Art Galleries from April 4 to April 30. This artist died only last year, and, though I do not know his work well, I consider what is shown here is of very fine quality. "He had visions," writes Mr. Scott-Moncrieff of his work. "He could and did absorb the very spirit and soul of a landscape at the moment of creative response. Far removed from all convention he contrives to throw the

glamour of romance over nearly all his work. A rough stretch of riverside, a massive clump of trees, a romping sky and a cottage, are all so skilfully arranged that every feature is the support and corollary of the other. There is no canvas so small but he has found it sufficient to give expression to what he has to say, and in almost every case the message is complete." Fuller Maitland seems at home especially with pearl-grey seas ("A pearly sea," "Early Morning in Channel," "The estuary of the Thames"), and moorlands with misty skies ("The start of the spate," "Rock and stream"); his style in these studies is free, bold, easy, his mastery of his material very complete.

On Saturday, April 9, were opened at the Leicester Galleries two exhibitions—the paintings and drawings by Wyndham Lewis, under the general title of "Tyros and Portraits," to which I have already alluded in these columns, and "Water-colours of Morocco," by Robert Burns. The same day saw the opening of the Royal Society of British Artists' Exhibition in their Galleries in Suffolk Street, Pall Mall. Both these important exhibitions I am obliged to reserve for fuller treatment in my Notes of next issue. Two other exhibitions of this month are those of the Hampstead Art Gallery which is giving from April 5-30 an exhibition of etchings by J. C. Moody, A. J. Finberg, S. Anderson, and other artists; and the paintings and drawings by Miss E. McNaught at the Little Art Rooms in Duke Street, Adelphi.

S. B.

## Art News of To-day.

THAT fine English artist, John Crome, commonly called Old Crome, was born at Norwich in 1769, and died in that city in 1821, where his centenary is being this month celebrated. Old Crome is well represented in our London collections; his "Mousehold Heath" (a subject he loved) of our National Gallery is a masterpiece of his art, and he is to be found also in the Victoria and Albert Museum, and in the National Gallery of British Art. Under the title of "Crome," Mr. Collins Baker, Keeper of the National Gallery, has recently dedicated a monograph to this great painter of English landscape.

Walker's Galleries in their second number of "Walker's Quarterly" (January 1921) have selected for treatment that interesting English water-colour artist of the last century, William Roxby Beverley, scene-painter, actor, actor-manager, theatre-proprietor, and artist. The above description will convey some idea of the interests which filled Beverley's busy life; he was, in fact, the son and grandson of north-country actors and theatre managers, and was always connected with the theatre, though always, too, his soul was in art. Through the help of David Roberts he became, soon engaged on scene painting, and became later one of the greatest scene-painters of his time; he said himself "A well-painted scene assists the poetry of the drama, for it saturates the imagination"; and in reference to his water-colour painting "I believe no other school of painting exists than the studio of the scene-painter. It cultivates breadth and atmosphere."

His water colours, which are of the highest merit, though for years they were overlooked, have been too often noticed in these columns to need mention here; the present text is by Mr. Frank Emanuel and is effectively illustrated.

Another art publication of great interest, issued by Messrs. Batsford is "The XVIIIth Century in London. An account of its Social Life and Arts," by E. Beresford Chancellor; the two last chapters, richly illustrated, treat "The Arts in the XVIIIth Century" and "Architectural Relics of the Period."

The films shown last week at the Alhambra Theatre of objects in natural colours by the Prizma process were a remarkable achievement. A dish of bananas and oranges (the yellows being throughout successful) seemed entirely natural, as well as the wings of butterflies.



## Faults of Modern Architecture.\*

By Professor A. E. RICHARDSON, F.R.I.B.A.

MANY pens have been burnished at various times for the purpose of checking irresponsibilities in design, contrary to the rules of good taste. I propose to add the productions of a newly-sharpened instrument to the mass of material, pertaining to this subject, already in existence.

At all periods in the history of Art there have appeared symptoms of distress, resulting from inertia, from decadence, from apathy, or from some other cause the origin of which has in the passing of centuries become obscured. We are not concerned at the present time with attempts to trace and explain the defects inherent in the artistic productions of the past; regarding the masterpieces of history, it is demanded of us that our knowledge should be complete, otherwise the whole theory of sequence and tradition stands for naught and is valueless. What does concern us, and that very deeply, is the need of criticism. The question arises, who is to perform the function of critic? who is to bell the cat? To become a self-appointed censor of the works of one's fellows will lead to recriminations; besides, what is the value of any criticism unless it be constructive? And so one could go on adding to the argument, without doing ought to alleviate the distress. The body of architecture is a delicate organism; when it is healthy its virility is assured, but neglected it develops symptoms inexplicable from the lay standpoint, and affords employment to amateurs and quacks, who profess to cure by treating the symptomatic display rather than to study the patient with a view to dealing with the physical cause of the debility.

Architects individually and collectively dislike criticism much as children dislike physic, yet the need for the right sort of corrective, might we not call it preventive medicine, is apparent to-day. For the purpose of this talk I propose to group modern architecture, as it is understood and practised in England, into five sections, namely: Domestic work, ecclesiastical building, civic architecture, buildings of the commercial class, and architectural engineering.

### 1. DOMESTIC BUILDING.

Although not of the first rank as a means of directly expressing the ambitions of a people, the building of houses, whether designed for the rich or the poor, does in this country deservedly hold a high place in the public esteem; I have, therefore, placed it first. We English, more than any other people, have developed a sense of domestic convenience and comfort in a manner unapproached by the people of any other country, America excepted. In the past, to be precise in Tudor times, this country enjoyed a vernacular characteristically national. It was then that the tradition of masonry, of brickwork, of carpentry represented the highest ideals of craftsmanship. In the sixteenth century the warm stream of the Renaissance began to reach its northern limitations, with the result that a change set in for things more grandiose. As was inevitable the change was slow; to the picturesque groupings of Tudor times came by roundabout routes the smattering of classic detail, leading eventually to the adaptation of Du-Cerceau-like compositions and finally to the successful grafting of the Italian exotic by the hands of Inigo Jones in the adventurous age of the early seventeenth century. For seventy years or so, in spite of civil dissension, the imported style, together with the remnants of native craftsmanship, lingered on. With the restoration of the Monarchy the modern, or eighteenth-century, spirit came into being, and henceforth for a hundred and sixty years, as far as domestic architecture was concerned, the age of good sense prevailed. Without inquiring too deeply into the nature of the various revivals that took place from the time of Wren until the period when Nash gave London a uniform of stucco and Grainger set out on the path of speculation to imitate this master in stone, with professional aid, in the streets of

Newcastle, it is safe to say that, apart from the benefit derived from Holland, France and Italy in the matter of design and detail, this country would not at the present time enjoy the wonderful heritage of brick and stone houses that it does, had it not been for the traditions of craftsmanship raised to such perfection in Tudor times. Take eighteenth-century brickwork alone: here we see evidence, both direct and conclusive, of the value of tradition and the freedom from mistakes and misapplications such sequence afforded.

There is no need for me to summarise the various phases of domestic work that arose during the quarters of the eighteenth century—work that speaks with eloquence of the reigning monarch, of the wits and statesmen, of the landlord and the merchant prince, in a more direct way than any number of history books. The work declined because new forces were at large, agriculture was giving place to mercantile production, the peculiar insularity of the country and its relation to the continent of Europe called for more active participation in the world's affairs; hence it was that Stephenson's Rocket, while of benefit to mankind in general, accelerated the decline of the arts in preparation for their expansion on an unprecedented scale in the period now before us. In the eighteenth century domestic architecture had, apart from the comforts and conveniences then considered polite, become artificial. It had gained on the polished or, to be more correct, the Academic side, but it was drifting towards the sham and the unreal. When we read of wooden mullions sanded to look like Portland, and stucco painted to look like Portland, we can understand how far the rot had set in. This does not imply that the use of stucco as such is wrong, neither does it mean that the ornamental cottages of Plaw and Crunden are bad. The domestic tradition of the eighteenth century lingered on in a way until the accession of Queen Victoria. In some parts of the country you can still encounter survivals of craftsmanship the origin of which puzzles the votaries of to-day to explain. Two days ago I was in a Midland smithery talking to a blacksmith on this very point regarding the persistence of the Tudor moulding in a strap hinge used locally for farm gates. His reply was, "When I was an apprentice, fifty years ago, I learnt to make the hinge that way."

I will not detain you with reminiscences of the Victorian age, of the interest displayed in Scott's novels, of the causes of the Gothic revival and its decline in this our own time. I propose, however, to call attention to the fact that the English tradition for domestic work was only obscured for a short half-century before its truths made a new appeal to such men as Eden Nesfield and Norman Shaw. In this is to be seen the beginnings of that which we are pleased to call modern domestic architecture, ranging from so-called Queen Anne to the whole gamut of quasi-cottage building, so expressive of the pre-war garden city. The war has changed all experimental nonsense; the high cost of materials, the need for rigid economy, and other causes have contributed to an observance of discipline and uniformity, doing more than a thousand lectures to bring domestic architecture into a restrained mood. An observance of tradition does not mean slavish copyism, plagiarism, or restriction of individuality, as some authorities seem to dread; it allows full scope for convenient planning, it admits of the craftsman once again being taken into the secret, it makes for human proportion, direct statement, and, what is most important of all, simplicity.

### 2. ECCLESIASTICAL BUILDING.

England in the course of three centuries has produced many variations of the Christian religion; her architects, responding to the demand, have endeavoured to be original and up-to-date. Is this not explanatory of the style of the churches expressing the period of the Restoration, of the conventicles of the eighteenth century, of the altered views regarding the Established Church that obsessed our grandfathers, of the emancipation of the Catholic Church and the building of Byzantine cathedrals for Romans, Sassanian tabernacles for

\* A lecture prepared for the Northern Architectural Association meeting at Newcastle on March 23.



Hebrews, temples for Scientists, halls for Theosophists, and Pinchbeck Gothic for Nonconformists. Because of the many religions many styles are in evidence. I am not going so far as to say that some of the individual buildings are not successful; many of them are wonderful, but the impulse that created Westminster Abbey, Salisbury, or the lantern at Ely is lacking; hence it is that no beauty of detail, no powerful silhouette, either of plan or skyline, can atone for the absence of creative fire engendered by religion. Wren's masterpiece, St. Paul's Cathedral, aptly expresses an age, not of religion, but of reconstruction. We do not seek for inspiration among the stones of modern church design, taken collectively. There are, however, exceptions to which we would all go out of our way to pay homage. Perhaps because England displays a nice catholicity in her choice of religions she can be allowed free scope in her selection of styles for religious use. Gothic architecture, if it be studied and adapted in the spirit of such masters as Sedding and Bodley with a view to its traditional value and specific uses, offers a basis upon which many things can stand. What is to become of the famous cathedrals and parish churches if some architects do not make it their care to specialise? Apart from the new cathedral at Liverpool, some of the most daring experiments in modern Gothic are being undertaken in America.

### 3. CIVIC ARCHITECTURE.

In civic, as in domestic architecture, the national traditions reflect the same influence and record the same conditions. Prior to the late seventeenth century civic buildings other than examples of mediæval date were non-existent in this country. The eighteenth century witnessed the beginning of civics—ugly term—as we understand civic building to-day, and the expression of city, town, and borough life in the erection of public buildings, which at the time of their inception must have appeared of the first magnitude, but which we regard to-day as being small. The keynote of the public work of the eighteenth, and, indeed, of the best part of the nineteenth, century was the dominant one of harmonious proportion and observance of academic rules. It was considered to be in better taste to be precise than original. The best public buildings of the past two centuries—I refer to those on traditional lines—have this about them: they are monumental in character, there is a restraint in the treatment of the material, the sculptural and other embellishments and accessories are in good taste. It is a curious thing that the best traditions of civic architecture, unlike domestic work, have been continued from the days of Wren almost to yesterday. If I were asked to name a particular building that exhibits such traits in a strong manner I should without hesitation refer to the Harris Library at Preston, which was completed as recently as 1896. Thirty years ago, when many new town halls and other buildings were designed, architects seemed to think that a mild version of English classic would meet the case. There was a good deal of timidity in this decision, inevitable in such a change from the prickly work of the 'seventies and 'eighties, and also a desire to emulate contemporary French methods. No building contributed so much to this period of indecision as the Grand Palais of the Paris Exhibition of 1900. Since that time we have been treated to further experiments in Greek, Neo-Greek, Roman, and Italian, following on American essays in a kindred direction; but we have not produced many buildings which, emancipated from the fashion that produced them, will live as specimens of design in the grand manner.

#### BUILDINGS OF THE COMMERCIAL CLASS.

It is in the rebuilding of the business streets and centres of commerce that faults of modern design are most obvious. In the first place architects are not wholly to blame, for they are compelled by modern conditions to erect buildings of a scale unsuited to the widths of existing streets. In the second place they fear competition; thirdly there is no standard of taste for such matters. It is open for the tyro in building to erect a façade wholly bad in juxtaposition to one really good

and thereby mar the effect of the good one. Without specialising as to the nature of these defects I would deprecate the use of giant orders, of the addition of meaningless ornament, of broken pediments, of rustication, and cartouches, surely the treatment of façades should be determined by the requirements of human scale, which in turn produce harmonic proportion? Is it not possible to do something to preserve a reasonable skyline, to smooth down angularities, and to encourage repose? The contrary seems to be the case judging from recent work. There seems to be little regard paid to the value of surface as surface, and as a foil to windows. Attempts, no without success, have been made to lay that bogey of every architect who builds in cities, I refer to the sheet of plate glass which forms the basement of many buildings; but English people do not yet appreciate architecture as a commercial asset. The existence of a committee of taste in every city and town throughout the kingdom would do much to prevent the spoliation of principal streets. What Grainger with the aid of Dobson accomplished at Newcastle; what Nash did in London, and Wood at Bath should in principle become imperative throughout the land. Theories of originality, of striking design, of expense and elaboration, do not enter into the question at all. We suffer from nondescript arrangements in our public streets because we lack the discipline, control and resistance necessary to all art.

#### ARCHITECTURAL ENGINEERING.

I have reserved this subject to the last not because I believe it to be the least important but by reason of the fact that it is largely out of architectural hands. This in itself is one of the most lamentable things I have to bring to your notice. Oddly enough the giant conceptions produced by engineers during the past forty years have the merit of scale, due of course to the objects they express, they have the merits of proportion, but there the good qualities end. It is pathetic to come across an engineer's attempt to make a building or an erection, be it of steel, masonry or humble brick, a thing of character. What the engineer lacks the architect possesses; there you have the case in a nutshell. The pity of it is that the two seldom collaborate and until this misunderstanding of the functions of each is overcome, no real progress will be made. Some of the factories of the North of England, some of the power houses in the South exhibit features that are distinctly pleasant, not let it be understood by reason of architectural embellishment but on account of massed form which is in the main accidental. Artists, mostly futurists, look upon such works as typifying modern life, but believe me, gentlemen, even if such accidental things are passable they are far from the true meaning of architecture. As direct statements of fact they may be admirable, but we are as unlikely to advance the spirit of architecture from such concrete evidence as we are to obtain inspiration from the ruins of Karnak.

#### THE PRESENT AND THE FUTURE.

If we believe in architecture good building will result. That we are reverently inclined goes without saying. I am thankful that the present is a critical age. It is also one in which the desire for expressing prevalent conditions is manifest. We who live to-day enjoy the heritage of the past; the labours of those who went before cheer us on. Is it not our duty to work for the benefit of posterity, to rise above the humdrum and the ordinary, to leave the cities and towns a little better, not a little worse, for those who come after. There are few faults in English construction; our knowledge of sanitary science, of hygiene, of heating and ventilation is above reproach; but I am not holding a brief for those to whom the charges of attending to the conventional scenery has fallen. They are mostly to blame. I began my lecture with an ambitious title; I do not intend to end it in a mournful strain. Things are improving; the leaven is at work. Scholarships, simplicity, good taste, reasoning, and logic will do more during the next decade to restore civic architecture in this country to the proud position it once occupied than lectures, literature, and jargon together.



# Thatch.—I.

By Charles G. Harper.

(See Inset Illustrations.)

WE have in our day come to see the revival of many excellent things, found good in the accumulated wisdom, the result of centuries of experience, of our forefathers—things discarded during the last two or three generations in favour of what old countryfolk call “new-fangled” methods. Among those things set aside and regarded with disfavour in the industrial developments of the Victorian era was what we may well style the “home-made” cottage. There was a time when it was easily within the competence of the average villager or countryman to build his own home, and he took a pride in the doing of it, putting into the work that individuality which was far more artistic than the best efforts of professionals. Thus came into being those cottage homes of England which are the delight of the eye and the quest of the artist. It may readily be allowed that neglect often brought them into a dilapidated and an insanitary condition, but so much, under the like circumstances, will happen to the most technically perfect modern cottages, given time. And, we are tempted, to add, not so much time, either.

Until recent times of stress, modern Housing Acts and Local Government Building Orders frowned down the rustic cottage and imposed a townsman’s ideal upon the country, with the result that rural England was becoming surely covered with odious little rows of dwellings, designed on the model of the suburbs. The appearance of these in the most unlikely situations was infinitely saddening to the lover of the countryside.

Economic, perhaps, rather than any other reasons, are now leading to more liberal views on this subject. Also it has been found that the countryman does not love the “hygienic” type of cottage built for him. Nor does he enjoy living in a row of houses, herded with other people. The type of cottage officially blessed leaves him cold, in more than one sense of the word. Or, more exactly, he is not warm in enthusiasm about it; while he finds it that terrible reversion from the ancient ideal which experience attained—“warm in winter, cool in summer.” Instead of that domestic comfort, the model thin-walled cottage with slate roof is all too often apt to be “cold in winter, hot in summer”: a hot-house in July, a refrigerator in December. The kind and the quantities of building materials both enter into this question, and cost; but a great factor of the olden “cool in summer, warm in winter” comfort was that cottages and farmhouses mostly were thatched. There is a little town in Essex—Thaxted—whose very name tells us that anciently it was wholly a town of thatch.

In these latter days, now that the odious Noah’s Arks of Ministry of Health cottages are rising all over the country, the hideous developments of economic pressure and a haste to overtake the housing shortage, it is good to adventure awhile into those rural byways where the heritage left us by our forefathers in the way of ancient villages and isolated cottages may be found. The finding of them will lead to mixed reflections, it is true. In Hampshire river valleys, where such old villages of thatch as Over Wallop will be discovered (somewhat



IXWORTH THORPE CHURCH.

qualified by a modern but not unpleasing church tower, with the unusual feature of a saddleback roof), it will readily be perceived that the rural village-makers of old would have little to learn from those of to-day. Indeed, they could teach the builders (for instance) of a certain eyesore block of cottages no further away than Holmwood Common, in Surrey, beyond Dorking, a good deal in the manner of “how not to do it.”

I should like to explain, almost to apologise for, the names of Over, Middle, and Nether Wallop. They take them from their situation on the Wallop chalk stream, which “wells up” (Anglo-Saxon “weallan,” to well or bubble) here.

I hold no brief for thatch. I find it interesting to the artistic eye, and it has all the advantages already claimed; but, in their own place, I do not find that Cumberland slates or Collyweston slabs are less admirable, given suitable conditions. And Horsham stone roofing is even more a desirable material if you can afford the heavy timbering to support it!

Nor should we hasten to condemn without reservation all the housing activities now in progress. There are others besides Noah’s Arks building; and at the present time I notice that even in Middlesex housing schemes the unusual sight of a new thatched roof is to be observed.

We need not labour the point of the picturesque quality of thatch. It is evident. It confers a suavity of skyline not to be matched by other methods. That is why the old barns and rickyards of Dorset form such excellent motives for the artist. I did not make the accompanying drawing of Dole’s Ash for the purpose of demonstrating the contrasting rigid line of a tiled or slated house with the artistic quality of the skyline of thatch; but I perceive, now it is done, that it aptly illustrates the argument.

I should like to see thatched churches in other regions than where they are exclusively to be found. They are so common in Norfolk and Suffolk that, although they seem strange to visitors from other parts, they excite no comment locally. I made some years since a list, which



DOLE’S ASH.



PAKEFIELD CHURCH.





MARKBY CHURCH, LINCOLNSHIRE.

I think is fairly comprehensive, of the thatched churches in England, as follows: Norfolk—Acle, Ashby St. Mary, Betton, Bramfield, Burgh St. Margaret, Burgh St. Peter, Billockby, Eaton, Filby, Hales, Ingworth, Ixworth Thorpe, Little Melton, Little Ormesby, Marlingford, Mautby, Paston, Salhouse, Stokesby, Swafeld (nave only), Thurgarton, Tivetshall St. Margaret's (chancel), Trimington, Upton, Ustead, West Somerton, Suffolk, Barnby, Coney Weston, North Cove, South Cove, Eriswell, Herringfleet (nave only), Heston St. Mary, Hopton St. Margaret, Icklingham All Saints, Icklingham St. James, Kessingland, Leiston, Lound, Middleton, Pakefield, Ringsfield, Rushmore St. Michael, Sapiston, Theberton, Thelnetham, Thornham Parva, near Eye (with tower thatched as well), Westleton, Woodbastick. Cambridgeshire—Coveney, Long Stanton, St. Michael. Lincolnshire—Markby.

Thus we have more than fifty thatched churches: unless, indeed (which seems unlikely), some of these have been re-covered with other materials.

In these our times we look upon such thatched churches with interest and appreciation, and do not necessarily consider the thatch to be a deplorable makeshift. It is a local condition, just as much as was the black flint that, knapped or not dressed, goes so greatly towards the construction of churches and other buildings throughout East Anglia; so that indeed that "city of churches," Norwich, and the many-churched town and picturesque port of Ipswich exhibit scarcely any other kind of walling.

But, a hundred years or so ago, it is evident that thatched churches, at least, were regarded as evidences of needy conditions; for we find Robert Bloomfield, the Suffolk rural poet of the last years of the eighteenth century, referring in his "Farmer's Boy" to autumn and to the thatched church of the village, writing in this vein of criticism:—

"The rude inelegance of poverty  
Reigns here; else why that roof of straw?"

But not always straw, especially in East Anglia, where furze, heather, and reeds are often employed. Heather is used chiefly for very humble cottages or outhouses, and



LYCH GATE, LONG COMPTON.



"TEAPOT HALL."

cattle-sheds. It also forms a quaint material for roofing "rustic" garden-houses. The heather harvest is a gipsy employment, for the most part. "Hoop-chips," a material not so well known, are obtained from districts where there is much copse-ware industry, such as barrel-making. They are hazel and alder cuttings. Most thatchers would find them refractory to work, but the life of such a thatch is long, and it is obviously less exposed to the danger of fire than any other material. Fancy thatching, in ornamental patterns, could not well be produced by using hoop-chips.

Reed thatch is more particularly the East Anglian variety, for the obvious reason that there is yet so much reed grown in the Broads district. It is not so easily fired as straw, for reeds are not readily set alight. Thus, when Charles Kingsley wrote in his "Hereward the Wake" of that hero firing the reeds of Ely against the Normans, he is exercising his imagination against the facts of nature. The fenland reeds refuse to burn, outside the pages of fiction.

The reed-layer of thatch would scarcely see eye to eye with the thatcher in straw. The methods used are wholly different. While with his "legget" the reed-layer methodically and with deliberation "knocks up" his pliable, more than yard-long reeds (reeds, indeed, often attain a growth of nine feet) on the rafters before tying down with hazel "sways," the straw-thatcher combs his surface smoothly down. Briefly, reed-thatch, under present conditions, having regard to the saving on the lighter roof-timbers necessary, against the heavier required in the case of tiles, is cheaper by about 60 per cent. The life of reed thatch is very long. Kept in repair, a roofing of this material may be regarded as much as a permanency as anything in tile or slate.

A further variety of thatch, mostly for sheds in the Broads region, is from rushes, called locally "boulders."

Straw-thatch may be said to have a life of thirty years, although it is evident to any observant person that many straw-thatched roofs have a greater age than that. But they are long past their prime. Winter and summer have weathered them until the natural protective gloss of the straw has gone, letting in the damp, or in dry weather exposing holes into which a casual spark from a passing traction-engine may fall, with disastrous results. A roof of steep pitch, with new or well-repaired thatch, is not necessarily inflammable. Rain and sparks or any burning fragments are readily thrown off; but neglect and false economy will often result in fires. Old and decayed thatch is a harbourage for insects, and becomes, with the seeds dropped by birds, or carried in the air, a kind of garden. The famous Anne Hathaway's Cottage, at Shottery, near Stratford-on-Avon, when I sketched it, some years ago, had a rotting thatch, wire-netted and growing a very luxuriant crop of shepherd's purse, groundsel, candy-tuft, and dandelion; while poppies waved their red banners on the roof-ridge.

Not far from Stratford is the very picturesque village of Welford-on-Avon, with much thatch, especially by the church, in Boat Lane, where is a group of highly-skettable cottages with elaborately-thatched roofs and dormers.





PIDDLTOWN.

On the Oxfordshire and Warwickshire borders, at Long Compton, there is even a thatched lych-gate to the churchyard. An exceptional lych-gate, this, for over it is a cottage inhabited some time since, and possibly yet, by a shoemaker.

A queer example of the very ancient and possibly original type of English cottage is that called "Teapot Hall" beside the road at Dalderby in Lincolnshire, between Woodhall Spa and Horncastle. It is thickly thatched, and, as will be seen by the illustration, its roof is at an exceedingly steep angle. The local legend, to account for the singular outline of this cottage, resembling as it does a curious kind of teapot once in use, is that it was built by the retired captain of one of the Indian tea-clippers, as in some sort reminiscent of his occupation. This, of course, is an idle story, for the cottage is just a survival of the ancient simplest form of timber construction, by placing timbers (or "gavels," as they were styled: hence the word "gable") against each other, like an inverted A, or possibly like an X, with the intersecting ends forming a truss for the roof-ridge. An ancient growth of ivy almost wholly obscured one end of this cottage until some five years ago, when it was rightly removed.

We look naturally for thatch in the Dorsetshire of Thomas Hardy; nor shall we be disappointed. It is abundantly evident in that integral part of Wessex, the most unchanging agricultural and dairying district in England. The village of Bere Regis is the most completely characteristic, from this point of view, of all the Dorset villages, for its cottages are almost all thatched, and a large proportion of them, it will be found, are built of that compost of sandy earth, chopped straw, and lime which in Devonshire is called "cob." Bere Regis is the place indicated by the novelist in his "Tess of the D'Urbervilles" as "Kingsbere," and "Kingsbere-sub-Greenhill." A grim, stark, decaying little village, owing something of its hard-featured look to an almost complete lack of gardens in front of the cottages, which abut directly upon the street. When a cottage at Bere Regis decays, or is burnt (which frequently has happened) it is commonly allowed to remain in ruins; and so, by a natural process, the village is decreasing. Most of the thatch is old and decayed; some of it affording a rich bed for weeds and ox-eyed daisies, and what Dorset folk call "bloody warriors"; meaning the rich red wall-flower. In the case of thatch-renewal, not often is the old covering stripped, but new is laid on the old; and the merest casual wayfarer may readily see with what thoroughness, or lack of it, the work has been performed; not only by the difference in colour, but by the varying thicknesses with which the roofs are covered. Here an attic window looks out immediately open-eyed upon the sunlight, there another peers forth, blinking, as from behind beetling eyebrows, from half a yard's depth of straw, shading off from a

coal-black substratum to a coffee-coloured layer, and thence to the amber top-coating of the latest addition. Thus, when Thomas Hardy describes Bere Regis as a "blinking little place," he fits it with an exact epithet.

There is much thatch also at Shillingstone, a village anciently styled "Shilling-Okeford," near Blandford; and it is additionally interesting from its imposing and lofty maypole, rising to a hundred and ten feet, and dressed with garlands every spring. Not far distant, along the same valley of the Stour, is Sturminster Newton, often marked on maps "Sturminster Newton Castle." Although this galaxy of names is highly impressive, it should be said that there is neither minster nor castle here; nor, indeed, is it a "new town." Time long since abated anything new about it. Here is a heavily-thatched inn, the "White Hart," obviously a house much older than the tablet inscribed "W.M.P. 1708," on its frontage would imply. It was restored probably at that date by one of the Mansell-Pleydells, owners of considerable properties in these parts.

To come nearer to Dorchester, the older part of Piddletown is very largely thatched. It is not that part of this considerable village which you see in passing along the main road between Bere Regis and Dorchester, but the parallel street behind the church. Along the highway, Piddletown (the "Weatherbury" of the Wessex novels) was rebuilt some forty or more years ago, in a kind of rigid unsympathetic domestic Gothic, and in a cold limestone; so that this part of the place is not a little repellent. It is, in fact, an importation, and has no sort of link with Dorset style or local building materials. But in that back street, with the pinnacles of the church-tower peering over at the end of a long perspective, you have an interesting survival. A very pleasing little note of distinction is made by an old addition to one of the cottages, apparently done about 1720, in the bay-window supported on pillars, shown in the accompanying illustration. It is a distinctly piquant urban touch in a thoroughly rural setting.

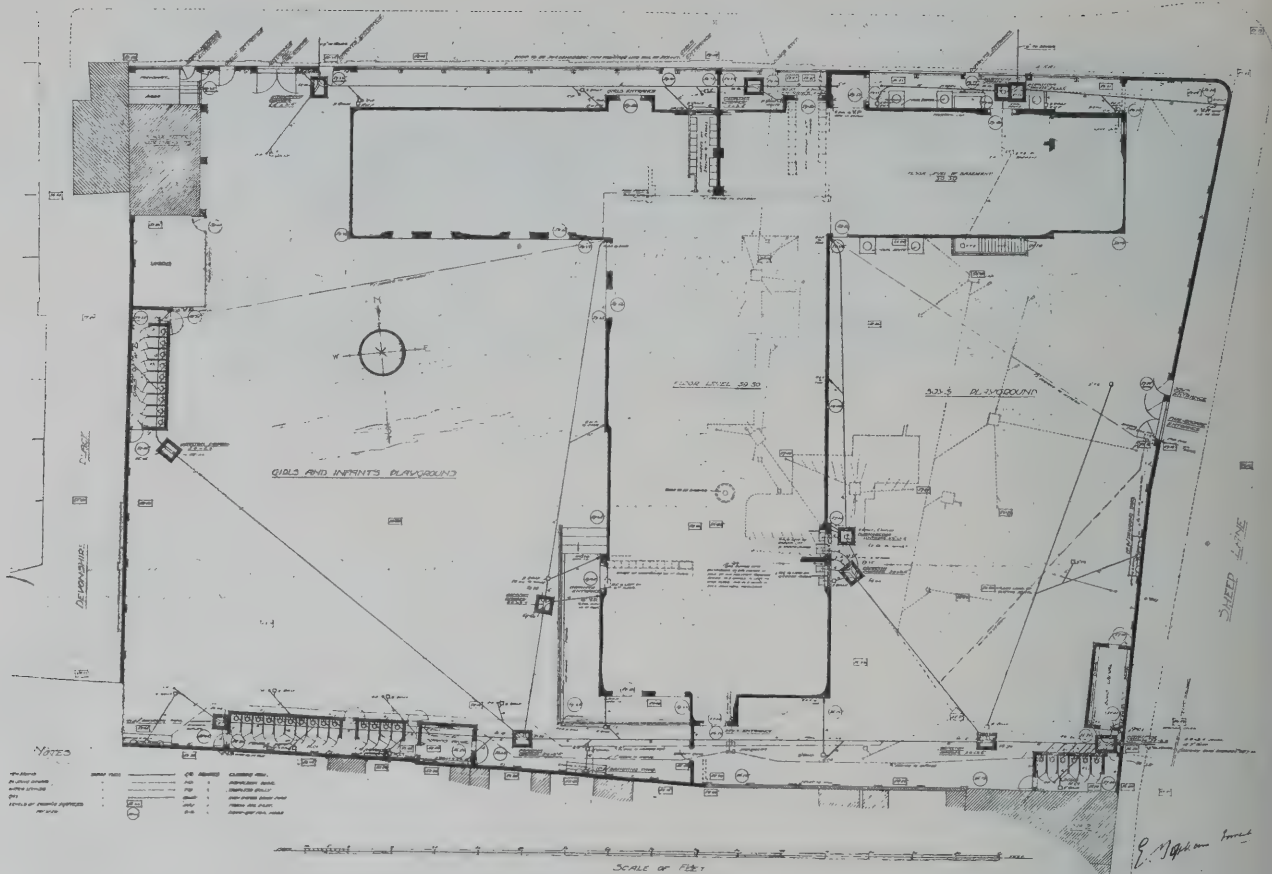
In Dorchester town we do not expect to find thatch. The place was in the eighteenth century so rebuilt and made so modish that it is not in general to be looked for. But a walk into the byways of the town, along Glydepath Lane, will, presently discover, in a fine damp situation close to the river, a tiny group of cottages heavily thatched. They are built of grouted flint and chalk-lump, faced here and there, and patched with red brick, and held together by iron ties, so that in this, their old age, they shall not some night altogether collapse. Prominent among these cottages, is that called "the Hangman's Cottage." Here, in former times, when the penal laws of England were altogether as savage as they are now lenient, Dorchester had its own hangman, in receipt of a regular salary,

(To be continued.)



# London County Council New Elementary School, London Fields, Hackney.

(See Inset Illustrations.)



BLOCK PLAN.

G. TOPHAM FORREST, F.R.I.B.A., Architect.

In this issue we publish the plans and elevations of a new elementary school to be erected by the London County Council at London Fields.

There is at present on the site a school, which was erected in 1874 and enlarged at a later date, but the buildings are now obsolete. The site, which is fairly level with a slight fall to the south-west, is situated at the junction of Sheep Lane and Westgate Street, the latter dividing it from the open space known as London Fields. Additional land at the western end of the site has been acquired, but as this land is at present covered with dwellings it will probably be some time before it is available for building purposes.

The new building will provide accommodation for 1,152 children in three departments:—Boys 360, girls 360, and infants 432.

The plan is T-shaped, with the main façade facing London Fields. The portion running at right angles to Westgate Street contains the principal class-rooms, staircases, lavatories, cloak-rooms, and teachers' rooms. The infants' department is accommodated on the ground floor in seven class-rooms and two babies' rooms. The latter have a southern aspect.

Two entrances are provided for the infants at the northern and southern end of the building, with cloak-rooms adjacent to each entrance. The boys' and girls' departments are on the first and second floors respectively. The class-rooms are repeated on these floors, with the exception that the practical workrooms are provided over the babies' room.

A medical inspection room is provided at the extreme eastern end of the front, facing Westgate Street.

The halls have been placed in the positions shown in view of the fact that this portion of the site may not be available for building purposes until a later date; but the arrangement of the building generally will enable the curriculum of the new school to be carried on effectively until the halls are built. Adequate playground areas have been provided as required by the Board of Education.

The following main considerations governed the design of the school:—

(1) That the class-rooms should be as far as practicable from the noise of the traffic in Sheep Lane and Westgate Street.

(2) That the playgrounds should receive the maximum amount of sunlight.

(3) That the building should be capable of erection in sections, in such manner that interference with the work of the existing school will be reduced to a minimum until the first portion of the new building is constructed.

(4) That the building should be capable of accommodating all the children, without waiting for that portion of the additional land which is at present occupied by dwellings.

It is proposed to erect the building in brick, with stock facings and Fletton backings. The main façade is treated with artificial stone cornices and dressings, but this treatment has been simplified at the rear of the building.

A roof playground will be provided, and this has to some extent governed the treatment of the elevation.

It will be noticed that the elevation is quite distinct from the usual type of school building in London. Mr. G. Topham Forrest, the Architect of the Council, has evidently determined to break away from the traditional method of treatment, and at the same time has designed an educational building which will prove economic in construction.

THE Office of Woods and Forests has given permission for the Buckingham Palace Hotel, in Buckingham Palace Road, to be known as Nobel House. The reconstruction of the hotel and its conversion into business premises for Nobel Industries, Ltd., is nearing completion. The top floor is now occupied by various departments. It was recently announced that Nobel's Explosives Co., Ltd., of Glasgow, a constituent company of Nobel Industries, Ltd., had decided to dispose of their Glasgow offices in view of the coming move of their staff to London.

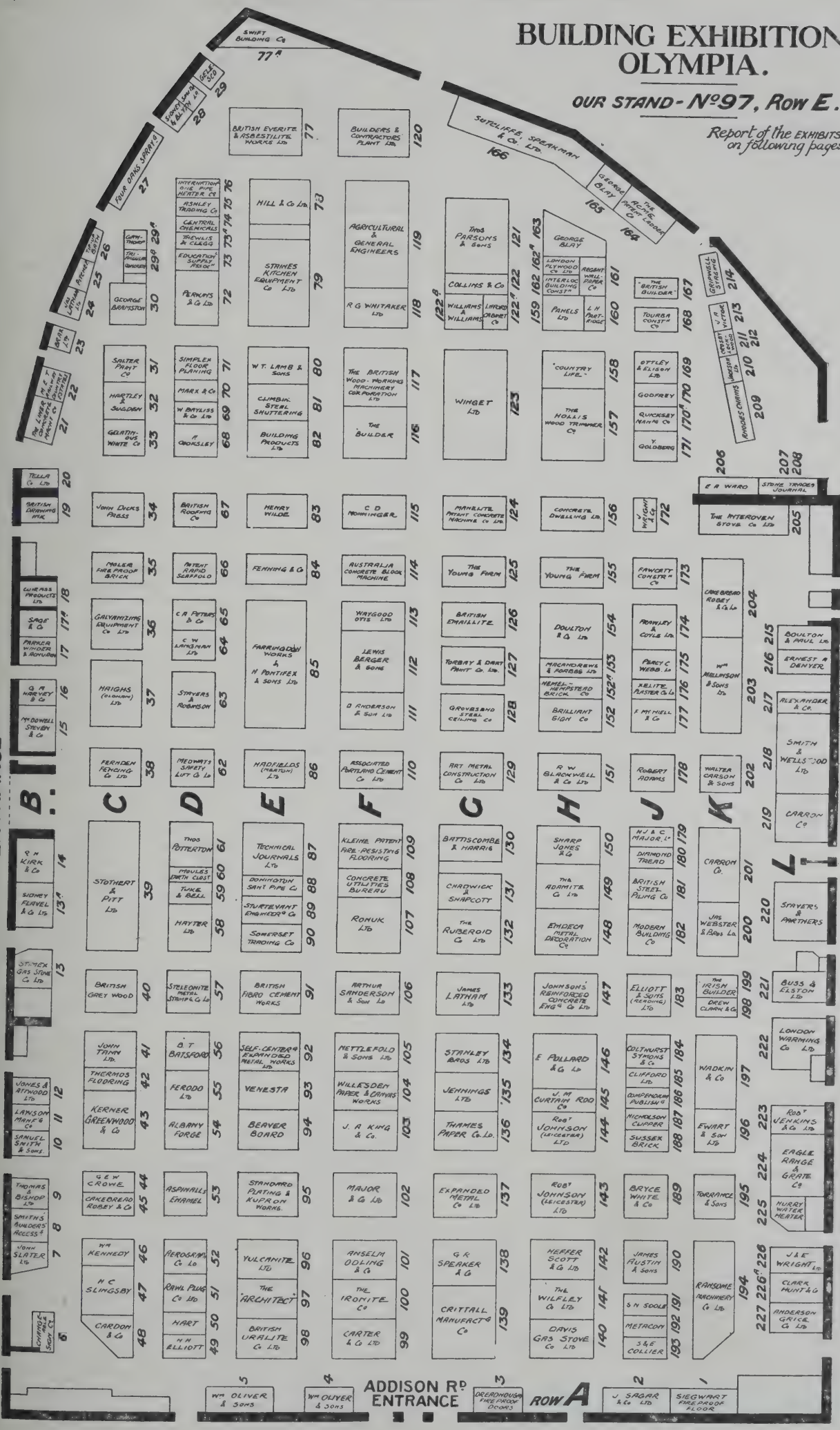


BUILDING EXHIBITION  
OLYMPIA.

OUR STAND-Nº97, Row E.

Report of the Exhibits  
on following pages

HAMMERSMITH  
ENTRANCE





## The Building Exhibition, Olympia.

THE 1921 Building Exhibition was formally opened on Tuesday last by Mr. J. W. Simpson, P.R.I.B.A., the ceremony taking place in the Pillar Hall.

Mr. H. Greville Montgomery, who was in the chair, said that at one time it was impossible to say whether the exhibition could be held or not, but they decided, strike or no strike, to go on with the preparations. Every exhibitor had come up to the scratch, and every inch of stand space was taken. This year the architectural societies had combined to form the Architects' Welcome Club—and he would be glad to think he had thereby helped, in however small a way, to bring about a permanent fusion between those professional bodies. The King had consented to become patron of the exhibition, and he hoped His Majesty and the Prince of Wales would pay it a visit.

Mr. John W. Simpson, P.R.I.B.A., in declaring the exhibition open, said a fair trial had been given to politicians in their adventure in the field of technical commerce; and public opinion was pretty unanimous that it had proved a failure. It was in combining efficiency with economy that the work of the technician differed from that of the amateur. The war being now over, the worker took the place of the fighter, and the abnormal conditions came to an end. It would be idle to pretend that all was well with the industry, but signs of improvement were not wanting. The only chance was to free the industry from every kind of Government interference, and to encourage all kinds of building operations. Mr. Simpson then outlined a new system of paying the contractor for his work which would, he believed, put an end to the present uncertainty. To his mind one of the chief obstacles in the way of better labour conditions was the hopelessly illogical and unsound system of paying a man not for the work he did but for the time he took to do it. The remedy lay in a system of fixed rates for piece-work. He was well aware of the great objection of the unions to such a system, based on its abuse by contractors cutting competitive rates in times past; but they had now to recognise the advent of a different class of employer, animated by other motives than those of mere profit, and worthy of the operatives' confidence. The actual rates should be determined and revised annually, and they should be formally approved by the Government as the standard of payment. The most important thing at the present time was to provide the artisan with an intellectual interest in his work, irrespective of its evident utility; and, if that were done, he had no doubt but that the operative would respond with far more energy than he would to that of his private advantage.

Mr. A. J. Forsdike, President of the National Federation of Building Trades Employers of Great Britain and Ireland, proposed a vote of thanks to Mr. Simpson. Alluding to the question of payment by results, Mr. Forsdike said that some of them laid a scheme before the Cabinet only a few weeks ago, one part of which was the payment of a bonus on output. While that part of the scheme was not being supported by the Government at the present time, they believed, sooner or later, it would be to the best interest of the trade that something like it should be adopted. The Government department must know perfectly well that the shortage of houses was due to their mismanagement. That department was now doing the best they could to get over the housing difficulty.

Sir Charles T. Ruthen, F.R.I.B.A., President of the Society of Architects, in supporting the vote of thanks, expressed the opinion that it would be wise if the various sections of the building trades met together and arranged for operatives to be paid a reasonable wage for a reasonable day's work.

The vote of thanks was supported by Mr. E. Fiander Etchells, A.M.Inst.C.E., Hon.A.R.I.B.A., President of the Concrete Institute, and was carried by acclamation.

We resume our Notes this week on some of the Stands. We hope to conclude the account in our next issue.

*D. Anderson & Son, Ltd.* (Belfast and London), are to students of construction something in the way of an historic firm as being the pioneers of "Belfast" roofs. These can be made of timber throughout up to a clear span of 100 feet on the lattice-girder principle. The model on Stand 111, Row F, is covered with "Rok" roofing—a self-finished bitumen material sold in rolls of 24 yards by 1 yard wide. A "Rok" mastic is made for sticking it to concrete roofs, as is also illustrated by a model. Of course, the firm's exhibit does not fail to include the many classes of their "Red Hand" roofing, sarking and lining felts and damp-courses. "Ferro-Rok," steel sheets faced with "Rok" roofing, are produced to take the place of galvanised sheets under conditions the latter will not withstand. A rather different speciality is the wood fencing coated with Anderson's "Sidel," a preservative recommended for exterior timber of all kinds.

*The Art Metal Equipment Co.* (186-188 Shaftesbury Avenue, W.) are the successors to Roneo, Ltd. (Contracts Branch) Art Metal Construction Co., Ltd.,. They exhibit examples of steel equipment for banks, offices, &c., such as a counter, table and shelving. The pair of double fire-resisting rolling steel shutters are fitted with steel interlocking slot screens, together with mechanical gearing and operating hand wheels. Special features of these shutters are the design and construction of the mechanical portions, the special device for controlling the speed of descent, and the method of release in the event of fire, the whole of which have been carefully worked out as the result of experience to fully meet all requirements of the L.C.C. and Fire Office Committee. In all their types of roller shutters ball bearings are fitted to minimize friction and give easy running with efficiency. A separate exhibit shows all the working parts and details of construction. An improved cabinet for filing drawings is to be found in the latest plan file in which the drawings are filed vertically and are prevented from dropping out of place or becoming creased by an arrangement of springs in between the folders. By this system there is a very considerable saving of space. Specimens of steel filing cabinets for correspondence of the well-known Roneo type are included.

*The Australia Concrete Block Machine Syndicate, Ltd.* (607 Salisbury House, London Wall, E.C.), are showing at Stand 114, Row F, the "Australia" Machine and the "Tonkin" Mixer. Both of these have previously been described in our pages, and there is no need to give here more than a brief account of some of their many good qualities. The "Australia" Concrete Block-making Machine is simple, strong, fool-proof, portable and efficient. It produces a block 24 inches by 12 inches, by any thickness up to 4½ inches, and the output by one unskilled worker is "One per Minute." The Tonkin Mixer turns, kneads and rakes every minute particle evenly, quickly, and thoroughly, and is equally useful for mixing sloppy, wet, semi-dry or damp concrete, facing materials, mortar, grout or compo, and is specially adapted for mixing plasterers' mortar and tar macadam for roads. It mixes equally well driven by hand or power, and, being designed on the open trough principle, it shows the materials in full view during the process of mixing.

*Baldwins, Ltd.* (3 St. Helen's Place, Bishopsgate, E.C.) are a very important firm and are here represented solely by one of their smaller activities, namely their galvanising department. We make this point in order that an idea may be obtained of the resources behind these goods in Bay 19 of the Gallery. All the articles are made at Blackwall where are the biggest galvanising baths in London and where all classes of sheet metal work are done. The range of goods is illustrated on the stand; it extends from tanks to wall ties, from cattle troughs to coal bunkers. A big business is now being done by the firm in welded cylinders and tanks, which, indeed, threaten the continuance of the familiar type of riveted cylinder. Other exhibits include galvanised, corrugated, and flat



working-up sheets; curved sheets for concrete flooring, galvanised wrought iron guttering, rain water piping, and ridge capping.

*The Brilliant Sign Co., Ltd.* (38 Gray's Inn Road, W.C.), are exhibiting their popular brilliant letters suitable for facias, hanging signs, tablets, stall-plates, window decorations, &c., at the same Stand, viz., 152, Row H, as previous years. Specimens of, showcases, gilt wood letters, enamel copper letters, bronze letters, metal plates, illuminated signs, &c., and their new Kaleidosign will also be on view. The Brilliant Sign Co. cater almost solely for the trade, respecting builders' and contractors' wishes in every detail by sending their workmen with special order forms to represent the trade solely, the company's name not appearing. The company have admirable freehold works at Shepherd's Bush which have recently been enlarged to accommodate 1,000 men.

*British Everite and Asbestilite Works, Ltd.* (Manchester) have erected a large and imposing open timber pavilion in Row E, No. 77, to illustrate the very varied uses of their asbestos cement products. Most of our readers are probably more or less familiar with "Everite" corrugated sheets and with "Asbestilite" flat sheets and tiles. An excellent idea of their appearance will be obtained by visitors to the stand. Both materials have won popularity in the building trade. The capacity of the Lancashire works is indicated by a huge single sheet of asbestilite which is 14 feet by 6 feet 6 inches—the biggest thing of its kind ever made. But the scope of this material by no means ends here. There are "Everite" sinks, draining boards, and apron pieces. We must confess to astonishment at its effect when worked up as mantelpieces. "Everite" rainwater goods (gutters, pipes, heads, connections, &c.) are said to be lighter, stronger, and cheaper than cast iron; they have been approved by the Ministry of Health for use in connection with State-aided houses.

*The British Fibrocement Works, Ltd.* (22 Laurence Pountney Lane, E.C.4), which is an entirely British company with British capital, is engaged in the manufacture of "Fibrent" asbestos cement slates and flat and corrugated sheets for all roofing and partition work. Their stand, No. 91, Row E, illustrates the many various "Fibrent" asbestos cement manufactures—material which is now used in all classes of buildings. The south side of the roof is covered with "Fibrent" corrugated sheeting. A semi-circular gable shows that the material can be curved to any required radius. The north side is covered with "Fibrent" red slating of the diagonal pattern. These slates are also made in grey, blue-black, and purple. The external treatment of walls and ceilings shows the use alternatively of "Fibrent" flat and corrugated sheets or the use of flat sheets treated with roughcast and pebbledash. The small gable on the north side has been covered with "Fibrent" scalloped slates—a material suitable for vertical work in housing and most effective for overcoming damp walls in exposed positions. The interior shows the use of flat sheeting and several finishing methods. "Fibrent" flat sheets  $\frac{1}{2}$  inch thick are fixed direct to the floor joists. Among the characteristics of "Fibrent" asbestos cement material the following are of particular interest: Economy and rapidity of construction; fire resisting to the highest degree and permanent; the material improves and hardens with age and exposure—does not crumble, rust, or require to be painted for preservation; being an insulator "Fibrent" material ensures an even temperature in buildings. The vast quantity of the material continually being used in the tropics is an undeniable recommendation of this latter quality.

*British Greywood* (Castle Hedingham, Essex) are introducing an English timber which seems to have very wide possibilities ahead of it. Their stand (No. 40, Row C) will possess particular interest for our readers because the process owes its existence to an architect who noticed the colour of a very old piece of elm piling taken out of the Thames. Instead of its original light-brown colour it had become a beautiful grey. Investigation proved that the identical change could be produced arti-

ficially in less number of hours than the other took years. The elm is not dyed or stained but is naturally coloured by the combined action of the inherent acid of the tree and the chemical agents scientifically applied. The tendency of elm to warp and shrink is thereby eliminated. No one can challenge the delightful neutral colour which results or the claim that it will "go" with anything. On the stand are pieces showing it as parquet, furniture, panelling both plain and polished, doors, windows, &c. Greywood obviously makes splendid veneers. We are assured that it maintains its colour and neither fades nor turns yellow. Hitherto the use of grey wood has been restricted by its very heavy cost. This new product is comparable in price to ordinary foreign hard woods. The firm have a big stock ready for sale in veneers, sawn boards, and strips.

*Messrs. Brown & Tawse, Ltd.* (3 London Wall Buildings, E.C.2), include now a reinforced concrete materials department which aims at being universal providers for all kinds of concrete requirements. In the centre of their stand, up in the gallery, Bay 21, is a Trice's hand cropping machine which cuts cleanly, silently, and easily angles, flats, rounds, channels, tees, and squares. The machines are self-contained, portable, and of simple construction. Of particular interest to architects and surveyors is the "B. & T. Super Road Reinforcement" of interlacing spiral wire, which is intended not only for road foundations, but also for concrete structures generally. It is claimed that a considerable saving is effected by the absence of overlap between the sheets, which are laid two or three inches apart and joined up by a special wire. Messrs. Brown & Tawse are prepared to motor any visitor interested to their stock-yard and display to them the large stocks of material and the general service.

*Messrs. Bryce, White & Co.* (28 Wharf Road, N.1), at Stand 189 J show Western pine doors "Red Cone Brand" (of which they are the sole importers), for staining and varnishing, Canadian pine doors, and Swedish yellow deal doors. Numerous descriptions of mouldings, turnery, and mantels of their own manufacture. The firm is also making a special point of mouldings, doors, &c., suitable for housing schemes, of which they claim to carry the most varied stocks in the South of England.

At previous exhibitions the stand of *Carron Company* (of Carron, Stirlingshire) has always been an interesting one, and their latest exhibit will be found to be no exception. It comprises cooking and heating appliances for coal, gas, and electricity, including a number approved by the Standardisation Committee of the Ministry of Health. Amongst the ranges are the well-known "Carron"—the ranges with the inner glass over door—No. 429—adopted in the principal housing schemes—and the popular "Beetonette." Of special interest is the coal saving living-room grate, "The Stenhouse," which is distinctive in design, and embraces the essential features of the modern kitchener, without sacrificing the comfort or appearance of the sitting-room grate. Considerable space is devoted to firegrates and fireplace suites. Gas cooking and heating appliances include No. 171 Cooker (for housing schemes), "Stella" (the silent fire), and "Abbey" series fires, and the "Forth" gas boiler and washing copper. Stoves for burning anthracite coal are also on view, as well as the popular boiler, "The Farm." An electric fire fitted in position demonstrates how such appliances may be adapted to existing fireplaces.

*Walter Carson & Sons* (Battersea, S.W.) lay particular stress on three of their many paint products—viz., "Muraline," "Muraprime," and "Coverine." The first is a washable water-paint prepared in a dry powder in thirty shades, the addition of an equal weight of cold water makes a paint of excellent surface and durability. "Muraprime" is a priming for this water-paint or for any distemper or for oil-paint; it is sold mixed ready for use. "Coverine" is a white undercoating of great merit. The permanency of "Japolite" colour, a super-white Japan, is shown by the "good as new" surface of a door painted in 1912 and untouched since, which is on Stand 202, Row K.



*Carter & Co., Ltd.* (Poole and London), have cleverly arranged Stand 99, Row F, to display their wares to advantage as exterior and interior decorations. For the former there is their Ceramic Marble in semi-dull glaze, and Faience constructional ware in bright colours. A new stoneware glaze has been added to the Carter productions; it is cheaper than Faience, and has a very soft effect. A variety of wall and floor tiling has been fixed, as well as three of this firm's attractive tiled fireplaces. An unusual feature is a series of very high-class hand-thrown pots of many shapes and sizes, which, with their painted ornament, make for real decoration.

*Colthurst, Symons & Company, Limited* (Bridgwater), exhibit their patent interlocking Roman tiles, patent "Paragon" tiles, and registered "Acme" tiles on Stand 184, Row J. This firm have been in existence for nearly a century, and enjoy the advantage of their works being in a district celebrated for its clay. The goods shown are all of notable fine quality.

*Climbing Steel Shuttering Co.* (515 Queen's Road, Sheffield) introduced to the building trade in the South of England at last year's exhibition a novel and interest-type of steel shuttering. They are again showing in the annexe and are at Stand 81, Row E. The inevitable trouble which arises out of costly, clumsy timber shuttering are painfully familiar to all who have used them on concrete construction. Steel as a substitute has, of course, been tried before. But the new system is the outcome of a practical concrete-worker's long experience with diverse varieties of form-work. The shutters consist of light steel plates 17 inches high, about  $\frac{5}{8}$  inch thick, and in lengths of from 5 feet to 9 feet. The only uprights or guides required are at the corners of the walling. The inside and outside shutters are held apart the desired thickness of the wall by wires which pass through holes pierced in their upper and lower edges. When the concrete has been filled in and has stiffened, the lower wires are cut and the plates are turned up from the bottom; the top wires acting as hinges. The plates have a face both sides, so that immediately they are turned up and wired they are ready for the next charge of concrete; and so the plates revolve to the top of the wall. Door frames and windows can be built in between the shuttering or openings left.

*Doulton and Co., Ltd.* (Lambeth, S.E.) represent all that is best in modern sanitary equipment. A typically imposing display is on Stand 154, Row H, which is worthy of a firm a century old and with a world-wide reputation. In addition to a large selection of fittings for ordinary domestic purposes, they supply sanitary equipment of special types, suitable for hotels, hospitals, sanatoria, baths, and public buildings of all kinds; also for use in tropical countries, and for ocean liners, cargo vessels, and submarines, &c.

*The Educational Supply Association, Ltd.* (Stevenage House, 40-44 Holborn Viaduct, E.C. 1), have erected on Stand 73, Row D, an enclosure, the four sides of which show four adaptations of their patent "Esavian" folding and sliding screens, namely, folding windows, folding partitions for inside use, folding doors for outside use, and folding shop front. The outstanding advantage of the "Esavian" patent is that a sliding upright is provided between each pair of leaves, to which the purpose-made movements are fitted. This principle ensures the screens folding with perfect ease and certainty. Furthermore, the screen can be made to fold entirely to one side of the track. The efficiency of the system is demonstrated by the fact that sliding and folding doors on this principle have been erected in Government buildings, the total length of the doors extending to nearly ten miles. These doors vary in height from 14 feet to 32 feet; and the openings covered vary from 40 feet to 100 feet in length.

*Samuel Elliott & Sons (Reading), Ltd.* (Reading), will be found at Stand 183, Row J. Their patent interlocking rail panelling has been fitted up on one wall of a small room with door and chimney-piece complete. The effect is exactly similar to the framed-up panelling on the other wall, and costs about half as much. Other fine speci-

mens of panelling are shown, also some good veneered work. The mouldings arranged on the walls are taken from the firm's new catalogue of authentic mouldings, and range from the sixteenth to the end of the eighteenth centuries. The patent anti-cyclone convertible revolving door, two-compartment type, is a very fine sample of workmanship and design. Their four-compartment door of the usual type, but with new collapsing features, is represented by an ingenious model. Specimens of church work are illustrated from work now in hand. The floor shows various floorings.

The exhibit at Stand 137, Row G, of the *Expanded Metal Co., Ltd.* (of London and West Hartlepool), consists of examples of slab work reinforced with diamond mesh expanded steel; brickwork reinforced with "Exmet"; hollow and solid partition construction; expanded metal ceiling grounds; steelwork encasing, &c. The company also exhibit samples of its various products, and particularly a new production, viz., rotary diamond mesh expanded steel, which can be supplied in coils up to 60 feet and over in length, and up to 4 ft. 1½ in. in width, an excellent reinforcement for concrete in roads, foundations, floors, roofs, and the like.

*Fawcett Construction Co., Ltd.* (47 Victoria Street, Westminster, S.W.) are again devoting their stand, No. 173, Row J, to the "Mon'lithcrete" girders and the "Edwardian" down-draught-preventing chimney pot. The former consists of rolled steel girders (from which the superfluous compression web metal has been sheared) embedded in concrete. This system is a well-tried one with a long list of successes to its credit. The "Edwardian" pot is in its way in no wise inferior to the other. In town and country, on palace and cottage, they may be seen satisfactorily crowning the chimney stack. In appearance they are, in our opinion, of unchallenged excellence for, unlike so many of their rivals, they are an ornament instead of an eyesore.

*Sidney Flavel & Co., Ltd.* (Leamington), have concentrated on that section of their business which deals with housing schemes. Their slogan is "If you want something a little different and just that little better at the same price that just makes all the difference, in any kind of stove, come to us." Stand 13A, Row B, is most unquestionable proof that a firm which was established in the reign of George III. may also be as up-to-date as one just getting into its stride. The exhibits are stamped by quality of design. That same characteristic is particularly marked in their "Leamington" 1521 parlour-oven grate, which was only perfected a few weeks ago. A "Leamington" must be as good to live with as it is good to look at, whether as a living-room grate or as a closed-in cooking stove. In both capacities it is thoroughly practical and of notable workmanship. The overall dimensions are 36 inches wide, 14 inches deep, and 38 inches high. The wrought-iron boiler, which is fitted to rest against the back flue, will heat a 35-gallon tank. So wide an opening as 36 inches permits of two exceptionally capacious hobs on each side of the fire; these may be fitted to serve as gas-cookers, available when the householder prefers to dispense with coal burning. Messrs. Flavel are gas-stove manufacturers on a big scale; here they show a simple gas-grate and mantel register.

*Wm. Groom & Son, Ltd.* (107 Camberwell Road, S.E.) will not be found mentioned in the catalogue as they were late arrivals; but their exhibit is in the Gallery at Bay 15B. A special display is here being given of standardised British-made joinery for housing schemes. It comprises gates, casements, sashes and frames, doors, staircase, dressers, drainers, posts, mantelpieces, and various mouldings. The company are out to challenge foreign importations. Their large stocks comprise a big choice of timber. It should be remarked that the goods here displayed are actually taken from a delivery for a housing contract. All the made-up joinery is guaranteed.

*The Grovesend Steel Ceiling Co.* (29 Great St. Helens, E.C. 3), obviously spared neither trouble nor expense in the erection of Stand 128, Row G. The registered name of their stamped steel sheets is "Ornastele," and the effect of the stand is to illustrate in a striking manner how



adaptable they are not merely for ceilings, but for wall-linings, dadoes, cornices, mouldings, shingles, &c. The designer has, it would seem, deliberately courted difficulties in order to demonstrate what a tractable material he had at command. An obvious activity for "Ornastele" at the present time is on interior cinema work, for these qualities would be pre-eminently suited. The fine stand hints at the big choice of patterns obtainable, as well as the effect of subsequent colour-schemes. The company invite all concerned to compare the cost of "Ornastele" with plaster work. A special treatment has been devised to protect the sheets against rust and condensation. "Ornastele" may be used, if galvanised, for exterior work.

*International Onepipe Heater, Ltd.* (36-38 Victoria Street, S.W. 1), enjoy an advantage in having something to show which is practically an innovation in this country, and yet which has firmly established itself among such brewd judges as the people of the United States. Central heating is much talked about here and much practised in America. And of the various competitive systems in the States, one of the most popular is that of this company. The installation fixed up at last year's Building Exhibition aroused considerable interest. Very briefly it may be described as a heater erected in basement or cellar which discharges warm air at one point only, namely through a copper grid in the hall floor. From that point the warm air circulates over the house owing to the natural law that air, when heated, expands and rises, displacing the cooler air which falls to a lower level by its own weight. The cool air re-enters the outer portion of the grid and flows downwards into the outer chamber of the heater for its re-circulation. We have already mentioned that the system is widely popular in the United States. A glance at some of the testimonials received apropos of recent installations in this country indicates that it is "making good" on this side, not only in old and new houses and bungalows, but also for churches, cinemas and all other kinds of buildings. The heater is obtainable in three sizes. The company's stand is at Stand No. 76, Row D.

*Robert Johnson & Co. (Leicester), Ltd.*, have two stands in Row H (Nos. 143-4), which will seem like an oasis in the desert to at least one class of visitor to the exhibition. For this company's business only begins when the throes of construction are over, and the impatient incoming tenant is wondering how to make his home beautiful. It is, we say, a pleasant change to come to Stand 143, which is charmingly set out as a Georgian room, with a strong Adam's feeling, and feast the eye on a beautiful satin-wood suite, on curtains, carpets, electric-light fitting, and all the rest, worked out to form a harmonious, restful whole. The purist may object that the designer has taken liberties with his period. That is true, if a meticulous copy is sought. But the result has been amply justified the freedom. The firm offer the practical and satisfactory explanation that, inasmuch as everything in the room has been brought together from the stock, it represents much less expense than if special fittings had been made for this exhibition. Messrs. Johnson have done the very first-class work of finest design, at a price to suit the business man with a definite sum to spend. Their adjoining stand is more miscellaneous, for it comprises an attractive mahogany study; a little oak breakfast-room, with inglenook and stone fireplace; and, finally, a portion of the stand is devoted to demonstrating the very real merits of the "J.M." patent curtain rods, in which the hangings are suspended from runners which travel along a grooved track.

*Kerner-Greenwood & Co., Ltd.* (King's Lynn), exhibit their well-known "Pudlo" brand cement waterproofing powder, chiefly by means of apparatus and stands at Stand No. 43, in Row C. One of the latter is a water tank constructed of their porous concrete blocks, to which a  $\frac{1}{4}$ -in. facing of cement, waterproofed with "Pudlo," was applied during manufacture. Another test is a full-size section of solid concrete floor with a 1-in. waterproofed cement topping, which keeps the surface bone-dry, though the lower edge is immersed

in water. The joints of a stoneware pipe filled with water are made watertight by a mixture of three parts of sand, one part of Portland cement and "Pudlo" brand powder. Again this year Messrs. Kerner-Greenwood make a feature of a selection from their most effective advertisement drawings by artists like Chas. Shepperson and H. M. Brock.

*J. A. King & Co.* (181 Queen Victoria Street, E.C.), bring together a goodly show of "King" specialities on Stand 103, Row F, including concrete partition blocks, wall blocks, plaster slab partitions and ceilings, roof slab construction, pugging slabs, and a ferro-concrete glazing bar. "Ferro-glass," which is being used at the new London County Hall, is constructed with glass prisms having small ferro-concrete beams formed between. The most recent development of this firm is being shown. It is a system of cavity walling in which the special-shaped blocks, 3 feet to 4 feet long, by 12 inches high, act as a filling between concrete piers. Each block is rabbeted on its top edge, so that when the block above is placed in position a hollow space is formed for the cement mortar. The system is particularly adaptable to final rendering by a cement gun or by unskilled labour. For housing schemes it has the great recommendation that the services of bricklayers can be dispensed with.

*R. H. Kirk & Co.* (Newcastle-on-Tyne) have on Stand 14, Row B, one of their concrete-block machines, the standard type of which can make every block, from 6 inches up to 5 feet long, required on a building. Though over seventy have been sold during the past twelve months in various parts of the country, this machine has not been long on the market and made its first appearance at Olympia last year. In addition to the standard type just mentioned, Messrs. Kirk & Co. supply concrete-block machines in sizes ranging from 5 feet by 13 inches by 6 $\frac{1}{2}$  inches to 7 feet by 18 inches by 9 inches or 12 inches. The machine can be worked by two unskilled men. A novelty on this stand is the mechanical tamper for which a patent has been applied. This is as controllable as a human arm, and has a radius of 40 square feet. It only requires 1 $\frac{1}{2}$  horse-power to work at 700 strokes a minute. The rammer has alternative pin and flat ends, and the one may be changed to the other without stopping the machine. It may be driven from electric motor, oil engine, or a shaft and pulley. Messrs. Kirk & Co. also make patent double-motion mixers, rotary screens, and washers.

*The Limmer and Trinidad Lake Asphalt Company, Limited*, (82 Victoria Street, Westminster, S.W.), have Montrotier, Seyssel, and Trinidad mastic asphalts for all classes of building work, horizontal and vertical damp-courses, flooring, roofing, &c. A small section of "Lithocrete" asphalt is on view at Bay 16 in the gallery, this is a flooring or roadway calculated to withstand the heaviest wear. A representative display is made of the Company's specialities. All their bitumen comes from Trinidad Lake, of which latter some interesting photographs are shown.

At Stand No. 153, Row H, *MacAndrews & Forbes, Ltd.*, are exhibiting their Fiberlic wallboard, which is a substitute for lath and plaster. This board is manufactured at their own mills from very tough and strong roots. It is highly fire- and moisture-resisting, also sanitary and vermin-proof. Fiberlic is easily and quickly erected. Pleasing panel effects can be obtained by the use of moulding strips. Moreover, it will last without a crack or fall the lifetime of the building. Fiberlic will take paint, enamel, distemper, stain, or varnish in just the same way as wood. The Ministry of Health have approved its use in any State-aided housing schemes or subsidised houses. Further particulars and samples can be obtained free from the makers, MacAndrews & Forbes, Ltd., 65 South Molton Street, W. 1.

This year's exhibit by *Major & Co., Ltd.* (205 Borough High St., S.E. 1) marks a further advance for Solignum Wood Preserving Stain. Additional colours have now been produced which will add appreciably to the use which can be made of Solignum for decorative purposes. The most important is ebony—a dead black. There is



also an orange, primrose, brilliant red, and a nut brown, bringing the total of Solignum colours up to eighteen. These colours are exhibited in a gable-ended hut, elm-boarded, the exterior of which is stained in brown Solignum, relieved in white, and doors in olive green. The interior, which reveals the effect of coloured Solignum for interior decorative purposes, has been arranged in conjunction with Messrs. Heal. Considerable interest now exists in the production of plain furniture, depending on simple lines for its beauty, and stained or painted. This exhibit shows something of what can be done with Solignum as a stain in the production of pleasing furniture. No one seeing the effect of this plain, beautiful furniture stained with the soft, rich colours peculiar to Solignum, can but realise that an advance has been made in the direction of introducing "Art in the Common Objects of Life." There has been an increased use of Solignum for its decorative qualities during the past year, probably in part due to its economy, and also probably to the unquestionable fact that the effect of its colours is so pleasing and so restful to the eye. Specimens of dry-rotted timber, and timber protected from dry rot by means of Solignum, and books of photographs of buildings treated with Solignum, &c., selected from a vast collection representing every country in the world, are on view.

*Messrs. Medway's Safety Lift Co., Ltd.* (1 and 2 Bucklersbury, E.C.4), are exhibiting one of their latest pattern electric passenger lifts in a special steel tower. This lift is fitted with combined push-button and car-switch control, and is complete with all latest safety devices, and Medway's improved lift controller, which has just been put on the market after considerable experiments and tests. In addition, there is an electric service lift and hand-operated service lift, and various interesting gears and accessories. Quite a novel feature is a patent shield-type collapsible gate, which is bound to find favour owing to its being dust-proof and draught-proof.

*The Moler Fireproof Brick and Partition Co., Ltd.* (Vickers House, Westminster), have constructed their stand entirely of Moler insulating bricks and slabs. The walls have a cavity, and a special system of bonding of the slabs is shown. There is also an example of fire-proof reinforced concrete floors with Moler blocks as lighteners, and hollow columns demonstrating the method employed for encasing steel joists and girders for fire protection. Samples of the many shapes and types of bricks and blocks now being made by this company at their Colchester works may be seen, as well as specimens of the diatomaceous earth in its raw and pulverised state from which they are manufactured. The high insulating bricks, suitable for use in cold-store work and for the insulation of boilers, retort benches, &c., will also be displayed on the stand. The company's products have been used in many large institutions, details of the more important contracts are available.

*Messrs. Nettlefold & Sons, Ltd.* (54 High Holborn, W.C. 1), are showing a complete range of the latest patterns of high-class builders' ironmongery and brass foundry. The firm is specially equipped to meet the individual requirements of architects, and can undertake to supply exclusive patterns to their specification. For many years a speciality has been made of indoor fittings of all kinds, more particularly in Bardsley springs, perfect ball hinges, guardian locks, as well as butts, handles, furniture, &c. On the stand there will be found a large variety of articles supplied for housing schemes, to which special attention has been paid, and as approved by the D.B.M.S., the L.C.C., and local authorities.

*William Oliver & Sons, Ltd.* (120 Bunhill Row, E.C. 2), are again situated just within the main entrance to the exhibition. They are showing English walnut, oak, and quartered oak. Once more there is a large stack of dry European wainscot, which has been seasoning for over seven years, and of which similar parcels can now be supplied to practically any amount. Other timbers include Cuban and Honduras mahogany, teak, American whitewood and walnut, &c. A feature of Stands 4 and 5, Row A, is the very attractive small

guest-room fitted out in splendid English wainscot, including a circular table.

*Messrs. Parker, Winder and Achurch* (Birmingham) are exhibiting the "Empire" hand and power concrete mixers, which "take the backache out of concrete," and the "Excelsior" Screen, built of strong steel blades narrow at the front and leaving a clear drop behind so that it never clogs. Another feature on the stand is the "Highfield-Cauldwell" electric generating plant, which embodies many new principles in the engine and control gear. Another electric machine is the "Utility Floor Cleaner" capable of scrubbing or waxing 2,000 square feet of floor space per hour. It is provided with four interchangeable attachments, one for polishing wood floors, one for scrubbing, one for removing varnish, and one for sandpapering. There is no need to refer to the "Australi" block-making machine, which is described in another part of these notices.

*Mr. L. H. Partridge* (4-5 Mason's Avenue, E.C. 4) has on Stand 160, Row H, a number of his true scale models for the consideration of architects, contractors, and advertisers. Even in this business there is scope for enterprise, and Mr. Partridge seems to have embodied a number of novel ideas. The roof and each floor are made to lift off so that the interior may be inspected—in a model on the stand this raising and lowering of the top and upper storeys is done by electricity, thereby imparting a curious "haunted-house" effect. All details, such as baths, lavatory basins, W.C.'s and sinks, as well as other interior features, are reproduced to scale, so that a client may grasp immediately the comparative size of various rooms and the general appearance. There are also models of a factory, the Cenotaph, a reconstruction of an old London Inn frequented by Dick Turpin, miniature concrete blocks, &c. Mr. Partridge lays emphasis on the fact that there is no paper or cardboard in the construction of his models, which are made of all wood under his personal supervision. It may be mentioned that this stand is illuminated by one of the Sheringham Daylight lamps.

*The Patent Rapid Scaffold Tie Company, Limited* (43 Lansdowne Road, Stockwell, S.W. 8), proved by an interesting test sometime ago that a "Scaffixer" machine could carry more than six times the ordinary safe scaffold load of 56 lb. per square foot. These are British-made galvanised steel forgings and have been exclusively employed during recent years on some of the largest contracts throughout the country. One interesting instance was their use on the scaffolding near 200 feet high which enveloped the Albert Memorial in Kensington. At the present moment they are fixing the London County Hall and at Africa House, Kingsway. A rather more recent arrival in the trade is the export of *The Tubular Scaffolding Company, Limited* (200 Upper Kennington Lane, S.E.), which is on the same stand No. 66, Row D. One prominent merit is the speed and ease with which this scaffolding can be erected. The natural development of it was a "Scaffoltube" for crane stagings, gantries, &c. In a job being carried out in Leadenhall Street by Messrs. W. H. Lorden & Sons a three-ton crane is carried on a "Scaffoltube" stage 110 feet high.

*The Ransome Machinery Co. (1920), Ltd.* (14-16 Clarendon Gardens, S.W. 1), extends a cordial invitation to architects, contractors, surveyors, &c., not only to visit the Ransome exhibits at Stands No. 194 and No. 26, but also to enter the Ransome Office at Gallery Stand No. 2 to discuss their constructional equipment problems. At the Ransome Office information about the latest and best concrete block- and slab-making machines is available, and an interesting series of building construction photographs are shown. The actual Ransome exhibits include concrete mixers, concrete hoisting and placing equipment, macadam-making machine, steel sheet piling, and winch, the popular Ransome tip-cart.

*Rcmuk, Ltd.* (Portslade, near Brighton), at Stand 107, Row F, and the exhibit is designed to illustrate in a practical manner the results obtained by the company's improved methods of polishing flooring and



# THREE IMPORTANT BUILDING MATERIALS

ARE BEING EXHIBITED AT THE

BUILDING TRADES EXHIBITION—APRIL 12 to 26,  
STAND 92.

FOR REINFORCED  
CONCRETE FLOORS,  
ROOFS, BRIDGES,  
CULVERTS, STRONG  
ROOMS, FACTORY  
BUILDINGS, Etc.

## "SELF-SENDERING"

(EXPANDED METAL).

FOR REINFORCED  
CONCRETE FLOORS,  
ROOFS, BRIDGES,  
CULVERTS, STRONG  
ROOMS, FACTORY  
BUILDINGS, Etc.

FOR REINFORCED  
CONCRETE WALLS.

## "TRUSSIT"

(THE BACKBONE OF CONCRETE WALLS).

FOR REINFORCED  
CONCRETE WALLS.

FOR PLASTER  
PARTITIONS AND  
CEILINGS.

## "HERRINGBONE"

(A RIGID METAL LATH).

FOR PLASTER  
PARTITIONS AND  
CEILINGS.

FIRE-PROOF.

VERMIN-PROOF.

TIME-DEFYING.

SELF-SENDERING EXPANDED METAL WORKS LIMITED,  
110 CANNON STREET, E.C. 4.



### DAMP WALLS

Drawing by Leonard Squirrell, R.E.

Buildings in the most wind-swept situations and with the most saturated walls are made bone-dry with cement plasterings waterproofed by the addition of our powder. These are applied either to the outside or to the inside of the wall.

For confirmation of this see our exhibit at Olympia, Stand 43, Row C.

REGISTERED

# PUDLO

TRADE MARK.

BRAND  
CEMENT WATERPROOFER

Used also for Reservoirs, Flooded Cellars, Leaking Tanks, Flat Roofs, Baths, Garage Pits, Concrete Buildings, etc.  
Tested by Faija, Kirkaldy, Cork University, the Japanese, Dutch and Spanish Governments, and the most eminent experts.  
BRITISH! and apart from Patriotism, THE BEST!

Manufactured solely by Kerner-Greenwood & Co. Ltd., Anns Fort, King's Lynn.  
J. H. Kerner-Greenwood, Managing Director.



work of every description and the many advantages of "Ronuk" sanitary polish. The woodwork of the exhibit has been prepared and polished by trained workmen of the company's polishing contract department.

*The Ruberoid Co., Ltd.* (81-83 Knightrider Street, E.C. 4), are exhibiting a material which has been on the market just thirty years. The invention of Ruberoid in 1891, and its immediate success, created an entirely new class of roofing, best described as self-finished bituminous roofings. During the many years the company were the sole manufacturers of this type an extensive experience was gained and a unique reputation for durability and reliability built up. It has been employed for all kinds of roofs, including those of the largest public works, factory, dock, engineering, railway, and commercial buildings of all types. In 1905 a method of colouring Ruberoid was perfected, and it is now obtainable in red or green. This coloured Ruberoid is, we believe, unique, being the only prepared flexible coloured roofing now manufactured. On the stand will be found models showing the method of application to roofs of various kinds and providing examples of flashings, gutters, &c. Actual examples, however, may be inspected by arrangement in almost every town in the country. Other exhibits of the company are Ruberoid dampcourse, Pluvex pure bitumen dampcourse, Ruberoid flooring, Ruberoid sarking felt, Pluvex and Starex roofing felts, P. and B. insulating papers, and P. and B. preservative paints—the latter for submerged or buried wood or metal work, also for all metal work exposed to the weather.

*Fredk. Sage & Company, Limited* (58-62 Gray's Inn Road, W.C.), have three electrical machines on Stand 17A, Row B. The first is an "Electra" engine of 8 h.p., which runs on petrol, paraffin, or gas. In its construction the aim has been to achieve a moderate price without sacrifice of efficiency or durability. The bearing surfaces are unusually large. A specimen is shown of the all-British "Domo" plant, which is made in three sizes, the "Minor-Domo," the "Major-Domo," and the "Super-Major-Domo." These engines can supply power not merely for lighting, but for auxiliary purposes like pumping and wood chopping. The third exhibit is an interesting novelty called the "Bungalyste" set—a complete six-light electrical installation no bigger than a small travelling trunk and which can be handled by two grips. With the engine goes every detail from lamps to ceiling roses necessary for the owner of a bungalow or small house to install, without any skilled assistance, his own lighting. On the stand the engine is merely bolted on to a box of sand. The plant is precision-built to Government specification. This is not an expensive toy, but a cheap, reliable lighting set.

*Self-Sentering Expanded Metal Works, Ltd.* (110 Cannon Street, E.C. 4) are at Stand 92, Row E, with their three important and popular building materials, known as "Self-Sentering" (expanded metal), "Trussit" (the backbone of concrete walls), and "Herringbone" (a rigid metal lath). The first is much used for reinforced concrete floors, roofs, bridges, culverts, &c. The second is for reinforced concrete walling. And the third is for plaster partitions and ceilings. The stand gives a practical demonstration of the various points claimed for each of these well-tried accessories.

*The Siegwart Fireproof Floor Co., Ltd.* (Thanet House, 231 Strand, W.C. 2), have on their stand a model which shows a 7½-inch floor; and above a small 5-inch floor. These floors are supported on a light steel frame which is encased with concrete. So far as the limited space for a stand is available at their disposal, the company are endeavouring to convey the idea of a small portion of a daylight factory, for which class of building their floors have been proved to be peculiarly adaptable.

*Samuel Smith & Sons, Ltd.* (Beehive Foundry, Smethwick), include on Stand 10, Row B, examples of their work as makers of ranges, grates, interiors, and tile registers. But the *pièce de resistance* is their patent "Foresight" range, which is a low-fire oven and interior combination range, with open and close fire. This is made in two varieties. One is to suit the D.B.M.S.

requirements for housing schemes; the other (in actual operation on the stand) is more elaborately finished, and is meant for a small house of a better quality. This latter type is shown with tiled hearth, kerb, and surrounds, and the oven door and upper portion are also tiled. One feature of the construction is that all working parts are away from the fire, and therefore cannot burn away or get out of order. When required for use as a close fire the trivet in front of the oven swings right over the fire and forms a hot-plate; the fret likewise is raised up to fit in front of this trivet. It is possible to boil over an oven. The boiler is sufficient to heat a 40-gallon cylinder and to supply water all over a medium-sized house. As parts being standardised, they are easily replaced in the event of a breakage.

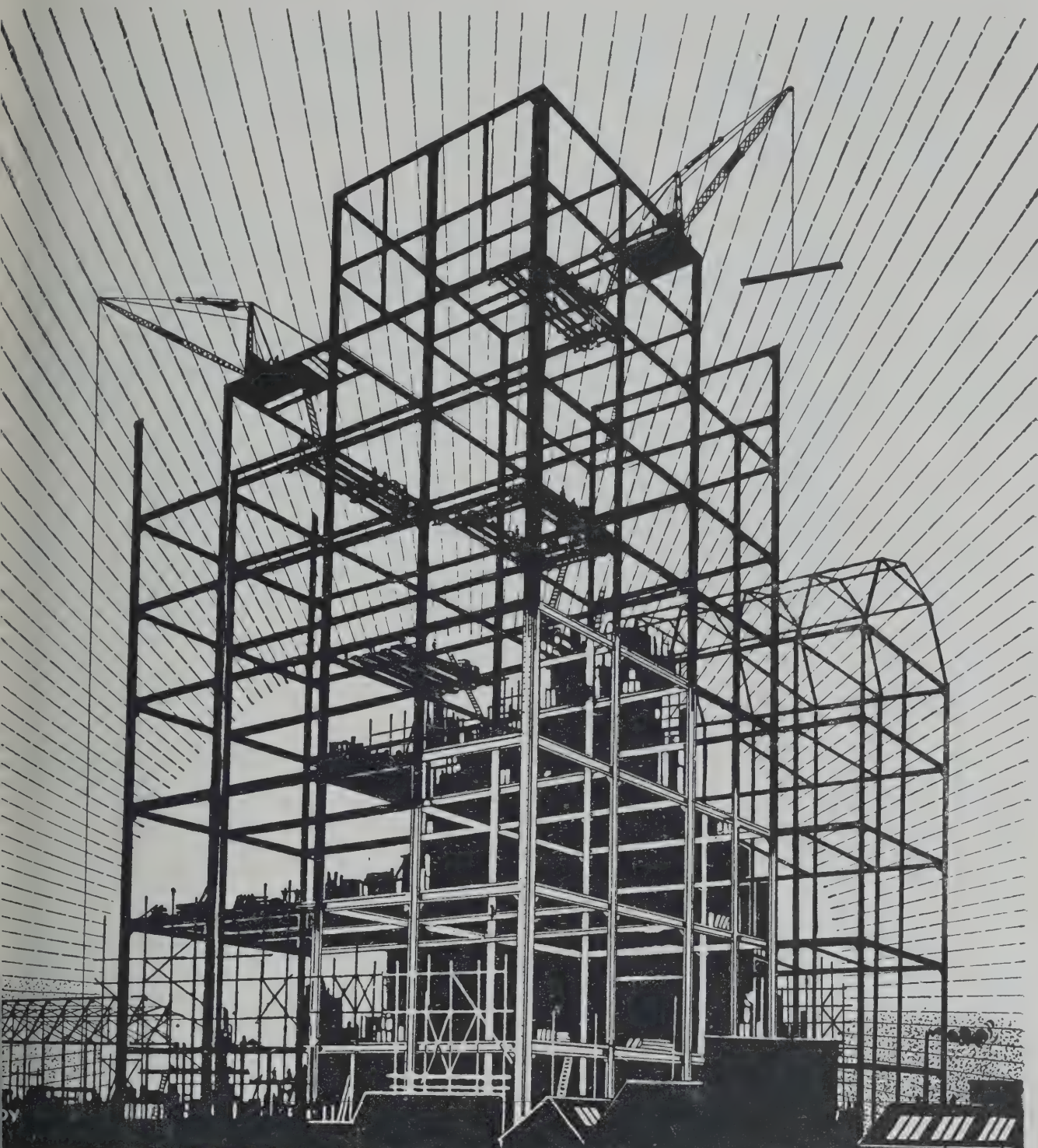
*Messrs. S. N. Soole & Son* (Richmond, Surrey) are showing at Stand No. 191, Row J, examples of joinery as follows: oak panelling, chimneypiece, and door in brown English oak; doors as manufactured for the Richmond and Hounslow housing schemes; and "Soole" pattern five-panel doors in oak, mahogany, and deal. The stand and oak work are from designs by Mr. E. Bates. A.R.I.B.A.

*Super Cement, Ltd.* (10 Upper Woburn Place, W.C.) have restricted their exhibit in Bay 18 of the Gallery to diagrams recording the actual tests made by intending users, and to vessels made of Super Cement and sand. Super Cement is a patent waterproof form of cement which is made in various cement works in this country. There is also a Canadian company—Super Cement (America), Ltd.—which is actually engaged in lining a reservoir in the State of Oklahoma, which will contain 280,000 gallons of oil. Super Cement, we are told, contains no added material intended to act as a pore filler or water repellent, but owes its properties to development of a very great density and so produces impervious concrete or mortar. Breeze concrete can be effectively and cheaply waterproofed with this material applied as a slurry—this is exemplified on the stand by brick trays. Photographs on the walls give works' views of the Tunnel Portland Cement Co. and the Kent Portland Cement Co. (the latter will be one of the largest in Europe.) Cylinders made by the Tunnel Portland Cement Co. were, as shown by the photographs, maintained under a pressure of petrol of 176 lb. per square inch since September last.

*Thames Paper Company, Limited* (Purfleet, Essex) have arranged Stand 136G as a miniature suite of rooms to demonstrate their "SX" board. This is a wood fibre product of great strength and rigidity manufactured in a convenient range of sizes—the standard dimensions rising from 6 to 16 feet in length and 32 inches, 36 inches, and 48 inches in width. The makers claim that ceilings and walls of "SX" board are permanent and totally unaffected by vibration. The surface has a matt finish on which any good paint, distemper, or enamel can be applied immediately after erection. Speed and simplicity of fixing is another advantage. Many artistic finished effects can be obtained, some of almost limitless arrangements of panelling being demonstrated on the stand. "SX" board is manufactured entirely at the company's extensive Purfleet mills, which are the largest of their kind in Europe. The material has received the approval of the Ministry of Health.

*S. Thornely Mott & Vines, Ltd.* (11 Old Queen Street, Westminster, S.W.), as managers for the Iron Company, Ltd., will be showing, on Stand 100, Row J, the uses of "Ironite" brand cement for flooring, waterproofing buildings. There are two different kinds. For flooring purposes "Ironite" is manufactured by being mixed, and is used in combination with Portland cement in the form of an "Ironite" cement slurry grouting, thereby saving the entire cost of rendering. "Ironite" brand cement for waterproofing differs in that it is not intended for use with Portland cement, except in rare cases, as ordinarily it is mixed only with water and applied with a brush. Another feature on this stand will be the machine invented by Mr. J. A. A. Nyström for making hollow concrete blocks on the "Aero" system.





# EDPATH BROWN & CO. LTD

## CONSTRUCTIONAL ENGINEERS

WORKS AND STOCKYARDS			
LONDON	MANCHESTER	EDINBURGH	GLASGOW
Woolwich Works,	Trafford Park.	St Andrew Steel Works.	Pinkston.
East Greenwich S.E.	BIRMINGHAM	NEWCASTLE-ON-TYNE	Office 19, Waterloo St.
	Office: 47, Temple Row.	Milburn House.	
London City Office - 3, LAURENCE POUNTNEY HILL E.C.4			



which has as its cardinal principle the advantage of at least two air cells in any cross-section, so as to secure perfect air isolation. Each machine has a capacity of about 1,000 blocks per day of ten hours, if operated by four men under reasonably favourable conditions. A length of walling has been built up on the stand to illustrate the "Aero" blocks. A third exhibit will be the Watson Bottom Dumping Wagons, for which this firm are the sole British agents. It is possible for a driver to discharge his load of excavated material from a Watson wagon without even stopping his horses. Watson wagons are made in two standard sizes, viz., one and a-half yard and two cubic yard capacities, with three- or four-inch tyres, bottom lined with steel, or entire wagon steel lined throughout as required. Also with or without brake.

*The Torbay & Dart Paint Co., Ltd.* (26-28 Billeter Street, E.C. 3), were represented at last year's exhibition by a modest small garage. This time they challenge attention with a gay tower 43 feet high, the exterior colour scheme of which, in violet, old gold, and pink, was, we understand, prepared by a Royal Academician. The tower (Stand 127, Row G) is a splendid object-lesson as to what can be done with "Aurora" distemper—a distemper supplied ready mixed for the brush, and which can be applied direct to Sirapite or other patent plasters. The weather vane on the summit bears the name "Novoid"—this is a powder for proofing concrete against weather, water, and oil by a chemical action which produces complete hydration of the Portland cement and any lime in the aggregate. The exhibits at the foot of the tower include a concrete tank treated with "Novoid," which has held petrol for three months. During the exhibition there will be frequent pressure tests carried out on "Novoided" and plain Portland cement tanks. Other specialities are "Everok," the waterproofer; "Rencrete," the weatherproofer; and "Quelle," the flameproofer.

*Vickers, Limited*, (Vickers House, Broadway, Westminster, S.W.), are represented at Stand 21, Row B, in the gallery, by their concrete department. Three different concrete machines are here, viz., for making bricks, roofing tiles and partition slabs. Two sets are on the stand one being in operation, the other at rest. On the first it is possible for a man and a boy to produce 2,000 concrete bricks per day; a fair output by one man on the second is 1,000 tiles per week, while on the third two men can do all the necessary mixing, making and carrying away for 75 square yards of slabs in twenty-five hours.

*Messrs. Waygood-Otis, Ltd.* (54 and 55 Fetter Lane, E.C. 4), have again gone to considerable expense in fitting up an exhibit of their manufactures. They are installing a full-size working passenger lift, which travels from the ground floor to the gallery, and is capable of taking ten passengers. They are also showing samples of their various sizes of electric machines from small service lift suitable for carrying a load of one cwt. up to the largest machine which will take a load of 20 cwt. at speed of 400 feet per minute. This large machine is being fitted for Messrs. Selfridge, Messrs. Harrods, and other important installations. Controlling apparatus and brakes suitable for operating lifts from alternating currents are also exhibited. A working model of automatic push-button lift illustrates the methods of working a lift of this kind with safety interlocking arrangements to landing gates. Hand-power lifts are also shown, one fitted with spur gear suitable for raising loads up to 10 cwt., and others for light service, worked either by hand rope or by winding gear with handle and foot brake.

*James Webster & Bro. Ltd.* (9 New Broad Street, E.C.) are the chief distributors for the British Isles of Upson Processed Board for walls and ceilings. This board is easily recognisable from the fact that it has in section a blue centre. It is made only from clean, strong, wiry Canadian wood fibres. Under the Mullen test, Upson Board stood a breaking strain of nearly 400 lb. to the square inch; yet its weight is only about 550 lb. to the 1,000 square feet—a fifth as much as plaster. There is said to be an Upson product for every

need. The boards are obtainable in many different weights and dimensions; there is Upson-Fibre-Tile for bathrooms, kitchens, lavatories, and other places requiring a clean white lining; and there are the Upson-Fibre Strips for covering panel edges, for lattice work, and display work. Another section of Stand 200, Row G, displays the flooring specialities in hard and soft wood of Messrs. Webster, who were the original importers of hard rock maple flooring blocks and boards. An ample of a cheap wood which gives an excellent finish is the Carolina pine.

*The Wilfley Co., Ltd.* (Salisbury House, Long Wall, E.C.) have an actual Marbolith floor laid at the stand, No. 141, Row H, and as the area of this exceeds 45 square yards the quality of the material is clearly demonstrated. The floor laid has concave skirting formed round it, and in addition borders and designs are inset. The Wilfley Co. now have in hand contracts over thirty important housing schemes, and claim that Marbolith is the perfect jointless floor. Sample slabs are exhibited showing some of the colours in which the material can be laid, and architects particularly are invited to make a thorough inspection, both of these and the actual floor. It is claimed for Marbolith that troubles which were prevalent with this class of flooring some years ago have been entirely overcome, and the work is now guaranteed.

On the Stand No. 104, Row F, of the *Willesden Paper and Canvas Works, Ltd.* (Willesden Junction, N.W.) is being demonstrated the principal uses of Willesden paper as underlining and underslating. On one end of the stand there is shown Willesden paper underlining boards, and on the other side there is the Willesden paper underlining under slates or tiles. The one shows the open rafters and the uses to which the paper is put to ensure absolute weatherproof and waterproof results. The use of the 4-ply Willesden paper in place of tin, sheet iron, or other substances is illustrated. This, when painted, is guaranteed to last for many years. A light-green paper in 2-ply and 1-ply is shown, which can be used for panelling or for building purposes, for stenciling. Well known makes of Willesden canvas are shown in various qualities.

*Messrs. Williams & Williams, Ltd.* (Sardinia House, Kingsway, W.C.), have set up on Stand 122B, Row G, three types of "Reliance" metal windows as suitable for a cottage casement, a factory, and an office. They have standardised their designs in anticipation of a demand on housing schemes and factory work, and they have received the approval of the Ministry of Health as well as approval by adoption on the part of many public authorities. Heavier types of windows are supplied for better-class property, and can be designed either for composite openings or single lights as required. In these heavier sections the fittings can be solid gunmetal throughout or best quality malleable iron with gunmetal working parts. "Reliance" windows have been fitted in some of the largest factory contracts carried out during recent years in this country, including jobs for firms such as Vickers, Ltd., Leyland Motors (1917), Ltd., Armstrong, Whitworth's, B.S.A. Co., Ltd., Hayes & Co., Hotchkiss et Cie, and the Arrol-Johnston Motor Co. Messrs. Williams & Williams produce many special fittings, including a two-point handle for firmly holding the window when just ajar; extended hinges to enable both sides of the glass to be cleaned from within; a blind and curtain-rod bracket, and the "Reliance" joint where horizontal and vertical bars meet.

*J. Wright & Co.* (New Malden, Surrey) are the inventors and original manufacturers of concrete building partition and fixing blocks. The visitor to Stand Row J, will be particularly interested by a cavity constructed on their "Utility" system in which blocks are held rigid by the bead and hollow and bond. For exterior work the outside blocks are of ballast concrete and the inside blocks of breeze; condensation on inner walls is eliminated owing to the air space and porous nature of the breeze. Some 50,000 of



# THE NORTHERN

ASSURANCE COMPANY LIMITED  
(ESTABLISHED 1836)

Assets  
exceed  
15,000,000

FIRE  
LIFE  
MARINE



Income  
exceeds  
£6,000,000

MOTOR  
ACCIDENT  
BURGLARY

London Head Office: 1 MOORGATE STREET, E.C. 2.

Agency Appointments granted to Architects, Estate Agents, Auctioneers, etc., in a position to influence Business.

STAND No. 189, Row J, BUILDING EXHIBITION.

OUR SPECIAL WESTERN PINE DOORS  
CAN BE INSPECTED AT ABOVE AND  
WE SUGGEST A VISIT WILL GIVE  
COMPLETE SATISFACTION.

FOR STAINING.

FREE FROM KNOTS.

**WESTERN PINE DOORS**  
RED CONE BRAND (REGD.)

**BRYCE, WHITE & CO.,**  
28 WHARF ROAD, CITY ROAD,  
LONDON, N.1.

Telephones: { NORTH 715.  
CLERKENWELL 3738.

Telegrams: MYOSOTIS, HOX, LONDON.



blocks are being employed at the R.A.F. Club in Piccadilly. J. Wright's building and partition blocks have been most extensively introduced by the Office of Works into such important structures as Buckingham Palace, Marlborough House, Law Courts, Tower of London, British Museum, and the Imperial Institute. A large and well-seasoned stock is always in hand.

*Messrs. Venesta, Ltd.* (1 Great Tower Street, E.C. 3), are at Stand No. 93, Row E. In addition to the ordinary "Venesta Plywood" for wall and ceiling covering, which is usually supplied in alder, birch, or pine, particular attention should be given to the Venesta ornamental built-up panels in American figured oak, ash, black walnut, mahogany, teak, and satin walnut. These are put together with waterproof cement, and the thick-face plys constitute an integral part of the finished panel. Venesta, Ltd. do not wish this high-grade stock to be confused with the ordinary "veneered" plywood made by laying a wafer-like veneer on to three-ply boards. The panels are manufactured by British labour at their Silvertown factory, and it is from this stock that the Venesta period panelling is made. Venesta period panelling is an artistic, dignified, and effective wall covering, and is highly popular. Being plywood it is strong—it does not shrink or crack—and it improves with age. This panelling is supplied framed up ready for easy fixing, all that is required being a sketch and measurements of the room to be panelled. If the job is near London Venesta, Ltd. will supply and fix complete, and they are always willing to suggest suitable designs and treatment. For dining- and billiard-rooms, libraries, board-rooms, restaurants, &c., Venesta period panelling is an ideal material.

*Vulcanite, Ltd.* (Blackfriars House, New Bridge Street, E.C. 4) are having as a special feature of their exhibit many models illustrating the application of patent vulcanite roofing for flat roofs, "Rexilite" roofing for sloping roofs, "Leatherite" felts for lattice girder roofs, and "Vulcanite" bitumen sheetings for sarking. Other specialities include standard asphalt for filling cavity walls and "Reliance" brand of lead and bitumen damp-course. In addition to these there are many descriptions of their other roofing and dampcourse specialities, including vulcanite sheet asphalt for dampcourse, "Rexilite" dampcourse, "Bituna" pure bitumen dampcourse, "Vulcanite" waterproof sheetings for sarking, and "Vulcanite" sheet asphalt for roofing.

*The Young Firm, Limited* (of Virginia Road, London, and Oxford Road, Bournemouth) are exhibiting on Stand 125G and 155H specimens of square moulded newels and balusters and turning of every description. They specialise also in mouldings for every trade, as well as any description of machine work. This enterprising firm has made rapid strides since the last exhibition, and now have branches at Clacton-on-Sea and Poole, and are shipping their goods direct to Poole, Boston, and Harwich. They are big importers of American hardwoods, mahogany, pine, &c., &c., of which they are showing excellent samples. A visit to these stands is well worth the time, as this firm are prepared to quote for almost anything connected with the building and cabinet trades or any other users of wood and wood goods.

THE Butchers' Almshouses at Walham Green, erected in 1863 by the Butchers' Charitable Institution to perpetuate the memory of the Prince Consort—are to make way for blocks of flats for 2,000 people.

THE Dumbarton Education Authority have submitted the following building programme to the Scottish Education Department: (1) New school at Whitecrook, Clydebank; (2) new school at Dalmuir; (3) medical treatment clinic at Whitecrook, Clydebank; (4) school for mentally and physically defective children at or near Milton; (5) drill hall at Lairdsland Public School, Kirkintilloch; (6) alterations to Ardlui School and Schoolhouse; (7) reconstructions at Alexandria Main Street, Bonhill, and Jamestown Schools; and (8) new elementary school at Dumbarton. The estimated cost of these proposals would be: 1, £18,000; 2, £16,000; 3, £23,000; 4, £23,000; 5, £1,500; 6, £350; 7, £8,000; 8, £7,000—a total of £76,850.

## Devon and Exeter Architectural Society.

THE annual meeting of this Society, which embraces the counties of Devon and Cornwall and is in alliance with the Royal Institute of British Architects, was held on Saturday, April 2, at Exeter.

The chair was taken by the President, Mr. Anstie Bewes, A.R.I.B.A. (Plymouth), and amongst those present were Messrs. J. Crocker, F.R.I.B.A. (Exeter) and A. S. Parker, F.R.I.B.A. (Plymouth) (Vice-Presidents); P. Morris, F.R.I.B.A.; O. Ralling, M.S.A.; J. Bennett, Licentiate R.I.B.A.; B. H. Palmer, Licentiate R.I.B.A.; L. F. Tonar, Licentiate R.I.B.A. (Exeter); J. L. Fouracre, A.R.I.B.A.; C. Cheverton, M.S.A.; E. Coath Adams, M.S.A.; B. P. Shirr, F.R.I.B.A.; Victor Prigg (Plymouth); E. Ellis (Plymouth); Allan J. Pinn, A.R.I.B.A. (Hon. Secretary) and A. R. Holman, A.R.I.B.A. (Assistant Hon. Secretary) (Exeter).

Apologies for absence were received from Messrs. Dobell, J. A. Lucas, J. Jerman, W. J. Thommason, and C. R. Corfield.

The annual report was presented, and this, together with the balance sheet, was received and adopted.

The President referred to the death of three of its members, Mr. John M. Pinn and Mr. Charles Cole, Exeter, also Mr. E. H. Sedding, of Plymouth. The two former were past Presidents of the Society, and Mr. J. Pinn, who had reached the great age of eighty-three, was the oldest practising architect in Exeter. At this stage of the meeting a vote of sympathy was passed by the present standing in silence.

The President then delivered his address, of which a few extracts were as follows:—

He said, "In June last you did me the honour of electing me your President for the remaining months of the current year. I accepted the office with considerable diffidence, as my ignorance of the Society's business was profound, but I relied, as I stated at the time, upon the help and guidance of those who have grown grey in the Society's service. I have not been disappointed, and am truly grateful, though it has occurred to me at times that the solicitude of gentlemen on the Council for my comfort may have induced them to spare me a considerable proportion of the hard labour which I had always understood was the lot of a President. It is impossible indeed to be long upon the Council without being struck with the multiplicity of questions affecting the profession which have to be dealt with, and which, in the absence of such a Society as ours, would remain neglected, to the grave prejudice of those engaged in the practice of our art. The importance, therefore, of the Society is not to be gauged merely by any chronicle of striking events which may appear in an annual report. The one salient feature for which we professional men who live in these times ought to be profoundly thankful is that the Society exists available in case of need for counsel and support, and engaged year in year out in safeguarding the interests of its members, in securing a high standard of professional conduct, and in resisting the encroachments both of the exploiter and the blackleg."

"May I here express what I know is the unanimous feeling of all our members—our sincere regret that Mr. Allan Pinn is unable at present to see his way to resign the office of honorary secretary. Other members who speak with much greater knowledge than myself of the services which he has rendered to our Society for over fourteen years, but, since taking an active interest in its concerns, I could not help being impressed by the universal testimony to the extent and value of his long-continued and self-sacrificing labours. It is no figure of speech to say that we are deeply grateful to him. This is, fortunately, some consolation for us in the fact that his experience in the affairs of the Society will still be largely available; we are not, as yet, wishing him a peaceful and serene old age in his retirement, and our reluctant good-bye has still about it more than a suspicion of "



BUILDING TRADE EXHIBITION, APRIL 12-26

STAND No. 73, ROW E.



**Roofing the World**

*Partners in Progressive Building Construction*

# EVERITE

ASBESTOS-CEMENT

## CORRUGATED SHEETS

### ASBESTILITE

is the same material in  
**FLAT SHEETS,**  
**SLATES and TILES**

represent the highest attainment in building progress. They are infinitely superior to corrugated iron, roofing felt, etc. Never require painting. Absolutely fireproof.

### FIXING SERVICE

We have a large staff of expert fixers, whose service and advice are at your disposal. It will pay you to take advantage of our **SPECIAL FIXING DEPARTMENT.**

The depth of corrugation gives **EVERITE CORRUGATED SHEETING** a sturdy strength which is remarkable, and in this respect it is pre-eminent.

### **ASBESTILITE ROOFING TILES**

are better than the finest roofing slate ever quarried. They can be obtained in pleasing shades which harmonise with the landscape. The colours are indelible, impregnating the whole substance.

### EVERITE RAINWATER GOODS

(Gutters, Pipes, Connections) have jumped into immediate popularity, as evidenced by the large influx of repeat orders and the ever-increasing demand. Approved by the Ministry of Health for use in connection with State-Aided Housing Schemes.

*BRITISH made of BRITISH EMPIRE materials, by the pioneers and world's largest manufacturers of Asbestos-Cement Corrugated Sheeting.*

Illustrated Catalogue, Samples and Quotations from

**British Everite & Asbestilite Works, Ltd.**  
**PETER STREET, MANCHESTER**

London Office:  
77 & 79 CANNON STREET,  
LONDON, E.C. 4.



Telephone: 7790 CITY.  
Telegrams: EVERITE, MANCHESTER.

**NOT FOR AN AGE**

**BUT FOR ALL TIME"**



revoir." Mr. Holman, who, as you know, has for the last year been acting as honorary secretary, fully realises the fact that the experience of Mr. Pinn is an asset which the Society is naturally loath to part with, and he has been at all times only too ready to regard and describe himself as "pro tem.," though he has practically stepped into and remained in the breach made by the withdrawal of Mr. Pinn, and has, as we on the Council fully realise, done a large amount of work, for which and for his sportsmanlike attitude he has our hearty appreciation and thanks."

A cordial vote of thanks was proposed by Mr. J. Crocker to the President for his excellent address and able conduct in the chair during the past year. This was seconded by Mr. J. L. Fouracre.

The following officers were elected for the ensuing year:—Mr. Anstis G. Bewes (A.), President; Messrs. J. Crocker (F.) and A. S. Parker (F.), Vice-Presidents; Messrs. B. P. Shires (F.), C. R. Corfield (A.), J. L. Fouracre (A.); J. Bennett (Licentiate), F. Jerman, and B. H. Palmer (Licentiate), Council; S. Dobell, Hon. Treasurer; and A. R. Holman (A.) Hon. Secretary.

The newly-elected President, on taking the chair, thanked the members for the honour they had conferred upon him in voting him to the chair for the second year of office, and said he would endeavour to carry on the work of the Society as it had been done in the past.

The President proposed a hearty vote of thanks to the Hon. Secretary, Assistant Hon. Secretary, Hon. Treasurer, and Hon. Auditor, which was carried unanimously.

## Forthcoming Events.

*Friday, April 15.*—Architects' Welcome Club.—Popular Lecture at the Building Trades' Exhibition, Olympia, by Professor Beresford Pite, F.R.I.B.A., entitled "The Effect of Building Materials on Architecture." 6 P.M.

—London Society.—Visit to the Apothecaries' Hall. 5 P.M.

*Saturday, April 16.*—Architects' Welcome Club.—Reception in the Pillar Hall, Olympia, by the Presidents and Councils of the R.I.B.A., the Society of Architects, and the Architectural Association to Architects and other Guests. 3 P.M.

*Monday, April 18.*—Royal Institute of British Architects.—Meeting at 9 Conduit Street, W. Paper by Mr. Alan E. Munby, M.A., F.R.I.B.A., entitled "The Utility of Research in Building Materials." 8 P.M.

*Tuesday, April 19.*—Concrete Institute.—Lunches at Building Trades Exhibition, Olympia. 1.30 P.M.

—Architects' Welcome Club.—Popular Lecture at the Olympia by Mr. Raymond Unwin, F.R.I.B.A., entitled "Our Towns and Villages and How we Spoil Them." 6 P.M.

*Thursday, April 21.*—Institution of Quarry Managers.—Conference at Olympia, 11 A.M., 12.15 P.M., and 2.30 P.M.

*Friday, April 22.*—Architects' Welcome Club.—Dinner in the Pillar Hall, Olympia. 7 P.M.

—Town Planning Institute.—Meeting at 92 Victoria Street, Westminster, S.W. Paper by Mr. George L. Pepler, F.S.I., on "Some Town Planning Problems." 6 P.M.

## Competition News.

THE Hagley War Memorial Committee invite designs for a memorial cross to be erected in a prominent position at the junction of Park Lane and Kidderminster Road, at an estimated inclusive cost of £400. Ten pounds will be paid for the design selected. Designs to be sent to W. H. Palmer, "Felthorpe," West Hagley, before 25th inst.

THE Egyptian Government invite competitive designs for the new buildings of Qasr El 'Aini Hospital and School at Cairo, with accommodation for 1,225 beds. The competition will be conducted in two stages, the first of which (preliminary) is open to all architects; the second (final) will be restricted to twelve architects, six of whom will be selected by the assessor from those submitting the most meritorious designs in the preliminary competition, and six others nominated by H.H. Government with the advice of the assessor, Mr. John W. Simpson, P.R.I.B.A. Further information concerning this important competition will be found on our first editorial page.

## General.

A BUILDING guild has been established at Gateshead, proposes to compete in the open market for all classes building and repair work. The trade union rate of wages is paid to the members.

THE Hull City Council, at their meeting on the 7th inst. approved a scheme for the rebuilding of the North Bridge at a cost of £295,000.

MR. F. H. GIBBONS has been appointed chief borough engineer and surveyor to the Dudley Town Council at a salary of £450 a year, plus £150 as housing director, annual increments. Mr. Gibbons has been acting as assistant engineer to the Council.

THE Newport Corporation have deferred the project of constructing a sewer from the Mannesmann Tube Works at a cost of £100,000. The Health Committee are making temporary arrangements to cope with the sanitary problem of the district.

THE Birkenhead Board of Guardians are considering a proposal to extend the system of centralised heating at Tranmere institution to the wards now heated by coal fire. It is contended that while the estimated cost of the scheme would be about £2,750, this would be recouped in three years by economy in coal.

MESSRS. W. & G. FOYLE, the booksellers (second-hand and new), of 121-125 Charing Cross Road, W.C., have issued a new edition of their catalogue (No. 17) of books on architecture, art, and allied subjects. Any book in stock will be sent on approval, and a price will be quoted for any book not mentioned.

At the Bath Guildhall an inquiry was conducted by Frank Newman, on behalf of the Board of Education, into the proposal of the Bath Corporation to acquire by compulsory purchase a site of about eleven and a-half acres on the south side of the city, near Beechen Cliff, for the erection of a secondary school and open-air school for defective children. The Chairman of the Bath Education Committee said the new school would accommodate 700 scholars. A stone building would cost £150,000, and it was there proposed to build a temporary structure—probably of wood. Various objections to the scheme were heard.

## Housing News.

THE Truro Rural Council have passed a resolution asking the Government to discontinue grants subsidising private builders.

DUNDEE City Engineer was last week authorised to draw up specifications for 426 cottage houses in Craigieburn, Balgay, Maryfield, and Stirling Street. It was pointed out it would be five months before offers were invited for work, and that it depended on circumstances whether or not the work was carried out.

TREDEGAR Council last week decided to invite tenders for the erection of 126 houses, being the second section of the Ashvale housing scheme, the contract having to be completed by July 31, 1922. It was also decided to apply for sanction to borrow £14,212 for the construction of the roads and sewers of the second section.

At a meeting of the Newcastle Corporation Housing Committee, on the 7th inst., it was reported that the Ministry of Health had refused to sanction the Committee's acceptance of tenders for 150 houses at Walker, owing to the high cost. The Ministry recommended that new tenders should not be sought for a few weeks.

In the House of Commons, on the 5th inst., Sir Alfred Mond, replying to Mr. Geo. Thorne, said it was estimated that approximately 26,680 houses had been completed up to March 31 by local authorities and public utility societies, and the number of houses completed by private builders was 11,697. This gave approximately 38,377 houses completed. On March 1 there were 108,168 men, of whom 54,479 were skilled men, employed on the housing schemes of local authorities and public utility societies, while 10,686 additional skilled men were required immediately for the work actually in hand. A considerably larger number could be employed on schemes for which approval had been given.

A REDUCTION in house-building prices was reported by the Ashington Council last week. The following tenders for the erection of houses were let: J. W. Walker for 40 A type at £935 each; G. & F. S. Field for 42 B type at £964 each; and W. Dykes for 48 houses B 4 type at £1,053 12s. 6d. each. The chairman said the present contracts represented a saving of from £60 to £100 per house over the previous contracts.



## CONTENTS.

The Persecution of the Employer	PAGE 283	Future Housing Policy	PAGE 291
Illustrations	284	Correspondence	291
Notes and Comments	284	The Design of Advertisements (Illustrated)	292
New Books	286	"The Architect" Fifty Years Ago	293
London Art Galleries	287	The Building Exhibition, Olympia	295
Art News of To-day	287	Reading Society of Architects	302
Royal Institute of British Architects	288	Airship Sheds and their Erection	304
Competition News	290	Forthcoming Events	306

## The Persecution of the Employer.

IN most ages and in many epochs of the world's history some form or other of persecution has been rife. From very early times to the dawn of our own times people professing an unpopular form of religious belief have had to suffer for it. Catholics, Protestants, Quakers, Nonconformists and Jews have had to struggle against persecution before tolerance was meted out to them. In our own life-time graduates of the older universities had to subscribe to the thirty-nine Articles of the Church of England or to suffer certain disabilities. Class persecution though less marked and constant has been a feature of the life of nations. All these things belong to the past; but we have only to look round at the world in which we live to find that the human instinct of persecution has taken a new form, and one which is quite as illogical and ill-founded as any that has left its trace on past history. But the persecution we refer to—that of the employer of labour—is unofficial though even the Government of the country seems at times to regard it with at least a friendly neutrality! We may argue that the England of the early Georges with a population of something like fifteen millions was a better place than the England of to-day, whose greatly increased numbers are supported in the main out of the proceeds of industries; but it is indisputable that but for the enterprise of individuals we might to-day have remained a country supporting a scanty population scattered over the land, for it is doubtful whether Governments which have shown themselves from time to time inclined to interfere in industries would ever have created them. It was left to the enterprising merchant to form companies which owned ships trading in every part of the world, while many of our possessions owe their origin to the formation of these companies. Stevenson invented the steam-engine, but had not private companies built our railway lines to secure private profits the steam-engine might have remained an ingenious toy. Our mineral wealth would probably have neither attracted the enterprise of our Governments or have induced the country squire to take up matters outside the traditional circle of his interests. It is true that when the telephone became a commercial success, owing to the enterprise of individuals, Government did step in and endeavour to secure the rewards of enterprise for itself, with the results we are suffering from now; while those in authority, having proved their incapacity to manage either railways or mines at a profit, are now willing to divest themselves of all responsibility.

If we eliminate prejudice and try to look facts in the face we imagine we might say that whether an increase of the national wealth or population is intrinsically good or bad, it had only been made possible by those who have made and increased the channels of employment, the maintenance of which is necessary to a country having the population of ours. This being granted, it would seem common sense to treat the employer in a manner which could make his continued activities possible. For while themselves employers are but a part of the State, they may be described as its constructional members, without whose support the whole fabric of modern life would tumble to pieces.

Mankind may be divided into three classes—those who are incapable of doing any work for the community, those who are capable of doing certain definite work but who cannot create the opportunities which are necessary to them, and thirdly those whose imagination and capacity enable them to invent, organise, and carry out the processes which result in creating labour's opportunity; and this third and smallest class is the most valu-

able members of the human community in every modern State. Without its assistance no modern community could finance its administration, and were it eliminated every State would drop back by swift degrees to a condition of nomadic poverty, the hardships of which would be indescribable, because the whole organisation of modern life has been made possible by their efforts alone. And it is precisely this class of men who are now in every calling singled out for persecution, firstly by the working-classes, which by a system of strikes and malingering makes it increasingly hard for them to carry on enterprises with a reasonable chance of profit; and, secondly, by the Government, which shows an ever-increasing willingness to tax them out of existence, either from motives of thoughtlessness and a desire to obtain the numerical support of the Labour vote, or because they are inoculated with a weak and unreasoning optimism. During the last week we have read of Lord Gainford's offer on behalf of the mine-owners to forgo profits for a time in order that wages may be reduced as little as possible in a period of depression, and it is a sign of the times that we have not read a single expression of praise of what is surely a very public-spirited proposal—a proposal made after the miners' organisations had encouraged the destruction of the owners' property by flooding, and had interfered with voluntary efforts to save it. And yet the owners of collieries now making a profit have had in many cases to expend money for years in sinking them before they could obtain any return on the capital sunk in them, and have taken chances and not certainties in so doing. Labour, on the other hand, is never asked to work for nothing, but only to take a sum determined by the selling-price of what it produces, while it is quite strong enough to insist—as it does—that the margin of profit over working expenses shall be a moderate one. Unfortunately for themselves, employers who have spent vast amounts of capital in creating industries in this country cannot, without enormous loss, draw up stakes and shut down, but they can refuse to enlarge the scope of their operations, and if they have money invest it where conditions are more favourable to them, and it is Labour which will ultimately determine which course will be adopted.

Government during the difficult years of war often obtained by concessions what might have been demanded as a right in the public interest. This policy was pursued in the coal trade with the result that 240,000 more men than were employed in 1914 actually produce less coal. Now that excessive export prices can no longer be obtained, Government finds the industry can only be carried on at a heavy loss and decontrols it. Instead of blaming the employers for not offering wages which satisfy the miners is it not pertinent to enquire what amount of coal could be produced by 240,000 extra men on the 1914 level of production, what would be the selling-price of coal if these conditions obtained, and then what wages could be paid the collier at a commercial profit? We suggest that were this done the position might be radically altered.

Let us take the question of housing as an illustration of what might happen. We suppose it will hardly be denied that it is mainly the demands of Labour which has increased the cost of a small house to £900 or £1,000, a sum which is complacently approved as long as the working man feels certain that he will not have to pay a reasonable return in the shape of an economic rent on the outlay.

But will he be satisfied when the yield of taxation—drawn in the main from the income of a number of



employers—drops, as it must do, and he is forced to pay the whole cost of what he requires out of income? The amount of employment for the working man will be reduced, and his fellow-workers will see that he has to pay highly for every commodity he wants. In time to come Labour may come to the conclusion that it had acted unwisely in persecuting the employer, and that a greater display of tolerance and reason might have been better policy from a purely selfish standpoint.

We know that in holding a brief for the employer we are pleading a difficult case; it is easier to grow enthusiastic over the claims of Labour to "a living wage" and to urge philanthropy at the expense of others, and it is easy, too, to draw idealised pictures of what every man should expect to have by right.

But it seems more to the point to put the case in this way: We live in a country which has increased its population out of all proportion to its resources, unless those resources are developed with intelligence and industry. To do this we require more than we have ever done in the past, not only labour, but brains and enterprise, without which labour is deprived of many of its opportunities. Labour cannot afford to kill the goose

which lays the golden egg, nor is it just to do so under modern conditions when there is no political or social bar to any man's advancement if he can produce that which the public need. Many of our leading contractors and employers in other callings have started as working men themselves, and, given capacity, it is always possible for a man to rise by degrees. Alternately, if we have no means, but wish to philosophise over Utopias, we should emigrate to some pleasanter land in the Southern Seas, where Nature will afford us means of sustenance without work, and where conventions are non-existent and clothes unnecessary. In such a land we might form an ideal State in which every man would be equal and it would be neither necessary to employ or be employed. It is true we might have trouble because the better climbers or fishermen could obtain more fruit or fish, but this could be rectified by the simple operation of amputating a finger or thumb, and any attempt at differentiation could be checked in the bud. But the example of Russia should convince us that it is necessary to go into questions of climate and other natural conditions carefully before founding the ideal communist State and eliminating the employer.

## Illustrations.

LONDON COUNTY WESTMINSTER AND PARR'S BANK, LIMITED.—REBUILDING OF HEAD OFFICE, LOTHBURY, E.C.  
SELECTED COMPETITIVE DESIGN. MEWES AND DAVIS, Architects.

## Notes and Comments.

### The Next R.I.B.A. President.

THE nomination of Mr. Paul Waterhouse as President of the R.I.B.A. is an honour paid to a man who may be described as having no enemies, and as enjoying universal respect for his many admirable qualities. Whether we agree with him or not we always feel admiration for his excellent addresses and a quality of scholarship which is rare among architects. The older members of the profession remember his father, and the manner in which he maintained the dignity of his calling by strenuous insistence on the maintenance of an architect's position in the eyes of the public. They also remember his great kindness and sympathy with his younger colleagues—a sympathy which his son also shares. The President-Elect is not precisely a Radical, but we trust that he, like other thinking men, will see that there is a good deal to be done before the profession is put upon the best and most satisfactory basis. There are no very startling changes on the house list, but possibly new nominations will add greater interest to the forthcoming elections. Mr. Riley, Mr. Perks, and Mr. Topham Forrest will, if elected, as we hope they will be, fittingly represent the official side of the profession on the new Council.

### Roof Houses.

WE illustrate in this issue one of the most interesting things shown at the Building Trades Exhibition—the "Roof Houses" designed by Mr. Reginald Fry, application for provisional patents for which have been made. The idea is to charge a small royalty to everyone who wishes to use the method, which does not involve new materials but is simply based on the construction of a roof on the ground large enough to cover a ground- and first-floor structure. By this method brickwork, except in chimneys, is eliminated and the triangular spaces formed are utilised as cupboards. It is claimed that large economies are effected, a conclusion which we have not tested by calculation, but which appears to be very probably based on fact. Whether the public would like these apparently odd-looking structures is another matter, but we see no reason why they should not be soundly and æsthetically treated. The weakest point of the idea seems to us that the lower part of the roof might be roughly treated and damaged, since the young Briton has little respect for property other than his own. (Stand 170, Row J.)

### The Rebuilding of Mézières.

MANCHESTER promises to set the lead in the use of British labour to rebuild French towns devastated by the war. An interesting scheme is nearing completion whereby unemployed workmen in this country will be sent to France to help in this task. For some time past negotiations have been proceeding between the various Labour organisations in France, the Ex-Soldiers' Joint Council, and the French War Charities in Manchester. They have now reached the stage when all that is needed to put the plan into operation is the final sanction of M. Loucheur, the Minister of the Liberated Region. It is understood that M. Loucheur welcomes the proposal, and has used his influence towards removing any difficulties that might have been raised by the Labour parties in either country. Immediately the final obstacle has been removed, unemployed workmen will be sent from Manchester, probably to the French town of Mézières, which Manchester has "adopted," and there make a start towards the rebuilding of the war-torn area.

We hope that Manchester will not part with any of its bricklayers! Possibly an embargo will be placed on the export of either bricklayers or plasterers!

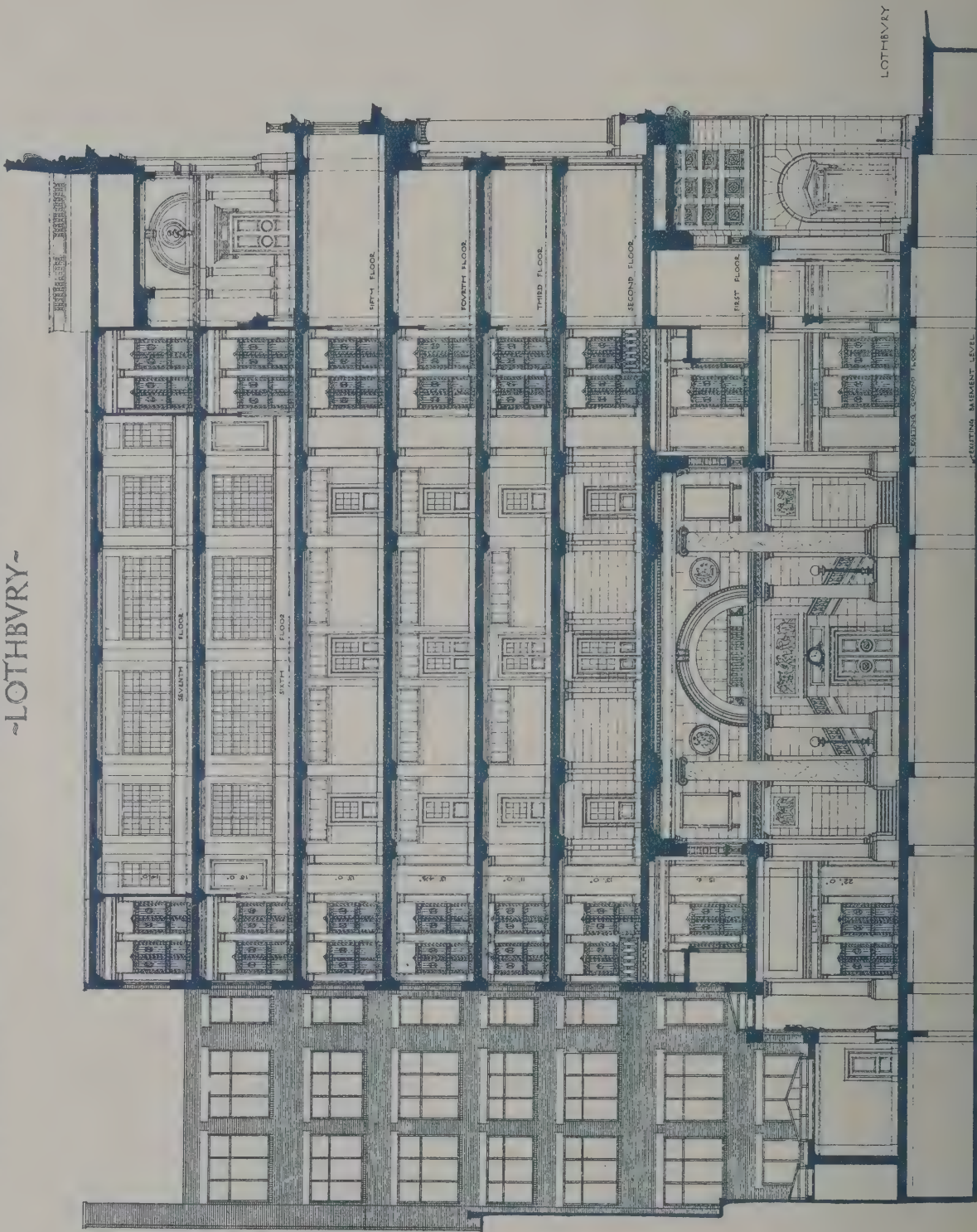
### The New Minister of Health.

WE like the tone of Sir Alfred Mond's remarks, Minister of Health, to a deputation which waited on him an account of which we give elsewhere, as we think indicated that he appreciates the logic of facts and that he will rather contract than enlarge the sphere of the operations of the Ministry with respect to housing. But it is time that the undertaking between all parties, with reference to the subsidy to be given to private building should be carried out by the introduction of a scheme of measure which might stand alone, as doubt has been expressed in some quarters as to whether the pledge given will be ratified. The merit of the subsidy is that it has served as an incentive to those who might otherwise have been unable to build, and that it increases the amount of privately-owned property—one of the greatest safeguards in this or any other State. We fully share the public objection to subsidies and grants, but this one was founded on substantial grounds and serves as a little set-off to the immense increase of State- and municipally-owned housing.



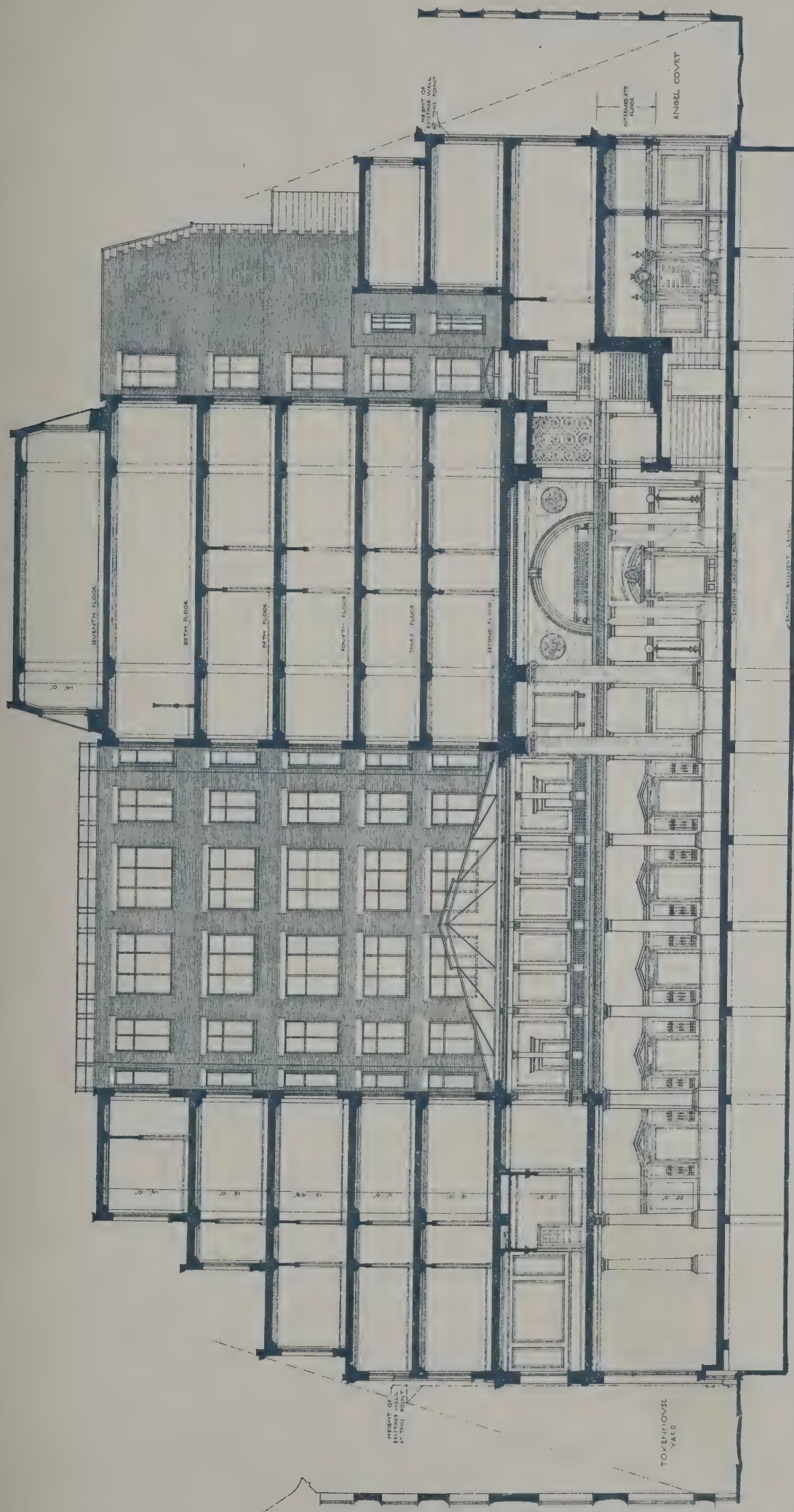


LONDON · COVNTY · WESTMINSTER · & · PARRS · BANK ·  
~LOTHBURY~



SECTION A-B





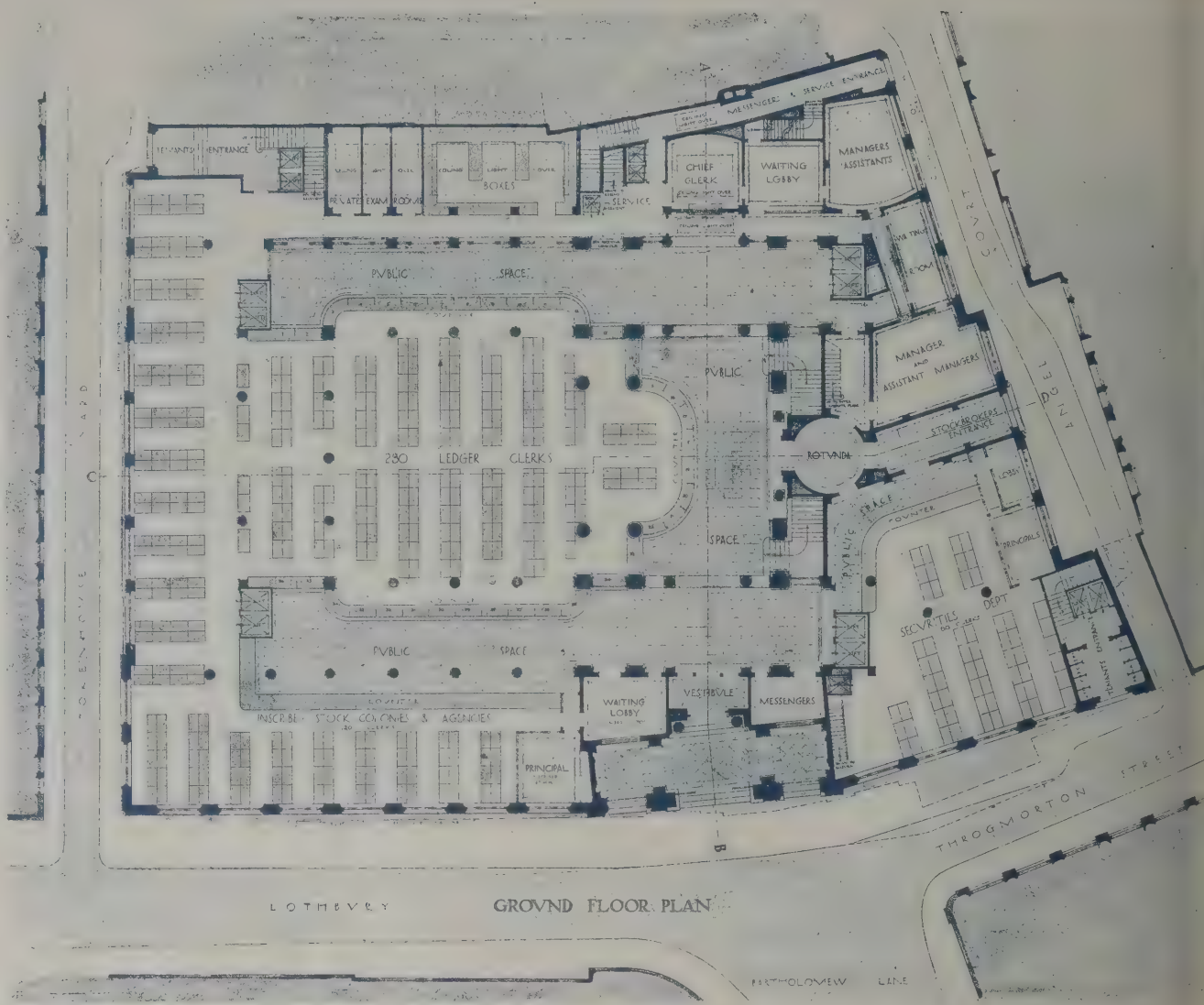
SECTION C-D

LONDON COUNTY WESTMINSTER & PARR'S BANK LTD.:  
REBUILDING OF HEAD OFFICE, LOTHBURY, E.C.—SELECTED COMPETITIVE DESIGN  
MEWES & DAVIS, ARCHITECTS

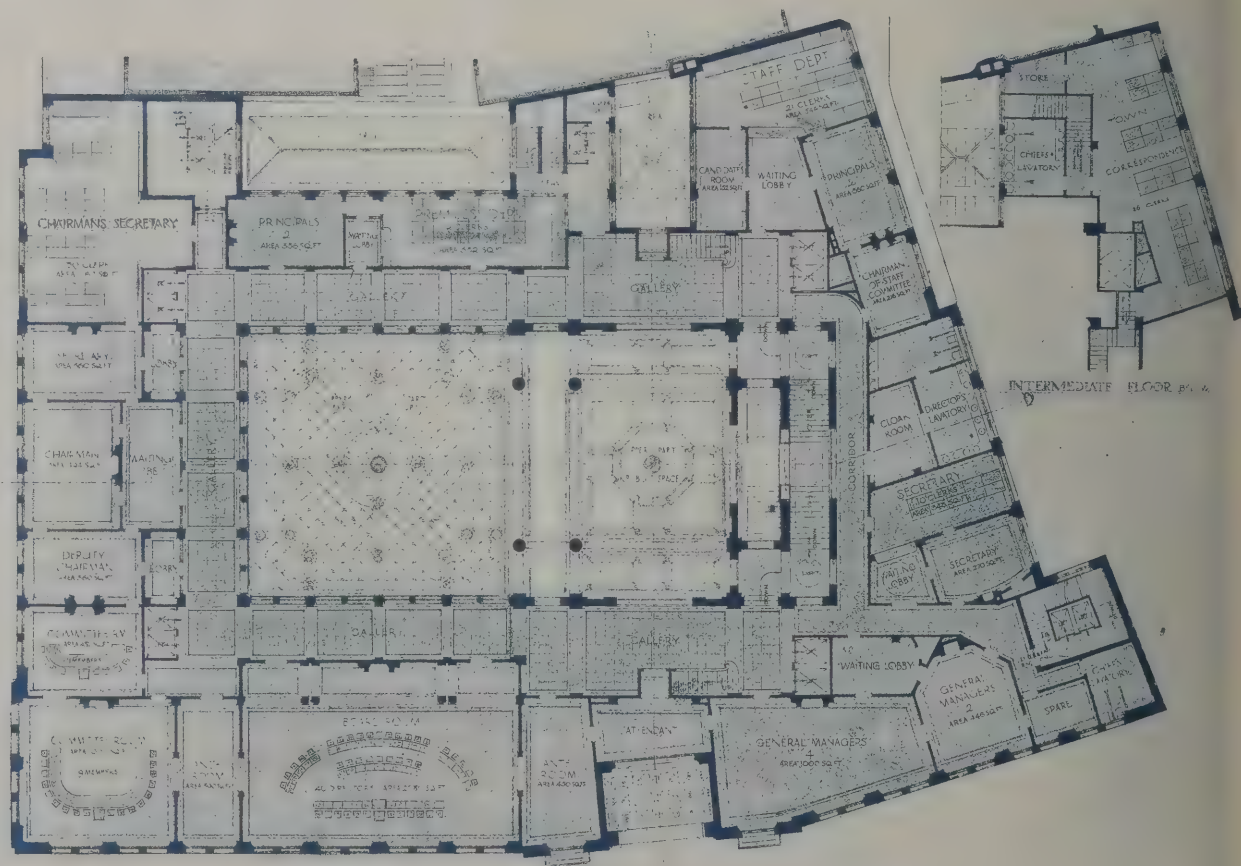








LOTHBURY GROVND FLOOR PLAN



FIRST FLOOR PLAN

INTERMEDIATE FLOOR PLAN





SECOND FLOOR PLAN



SIXTH FLOOR PLAN

SCREENLESS PHOTO PROCESS, SPRAGUE-HAYCOCK (PRINTERS) LTD, 69 & 70, DEAN STREET, LONDON, W.1

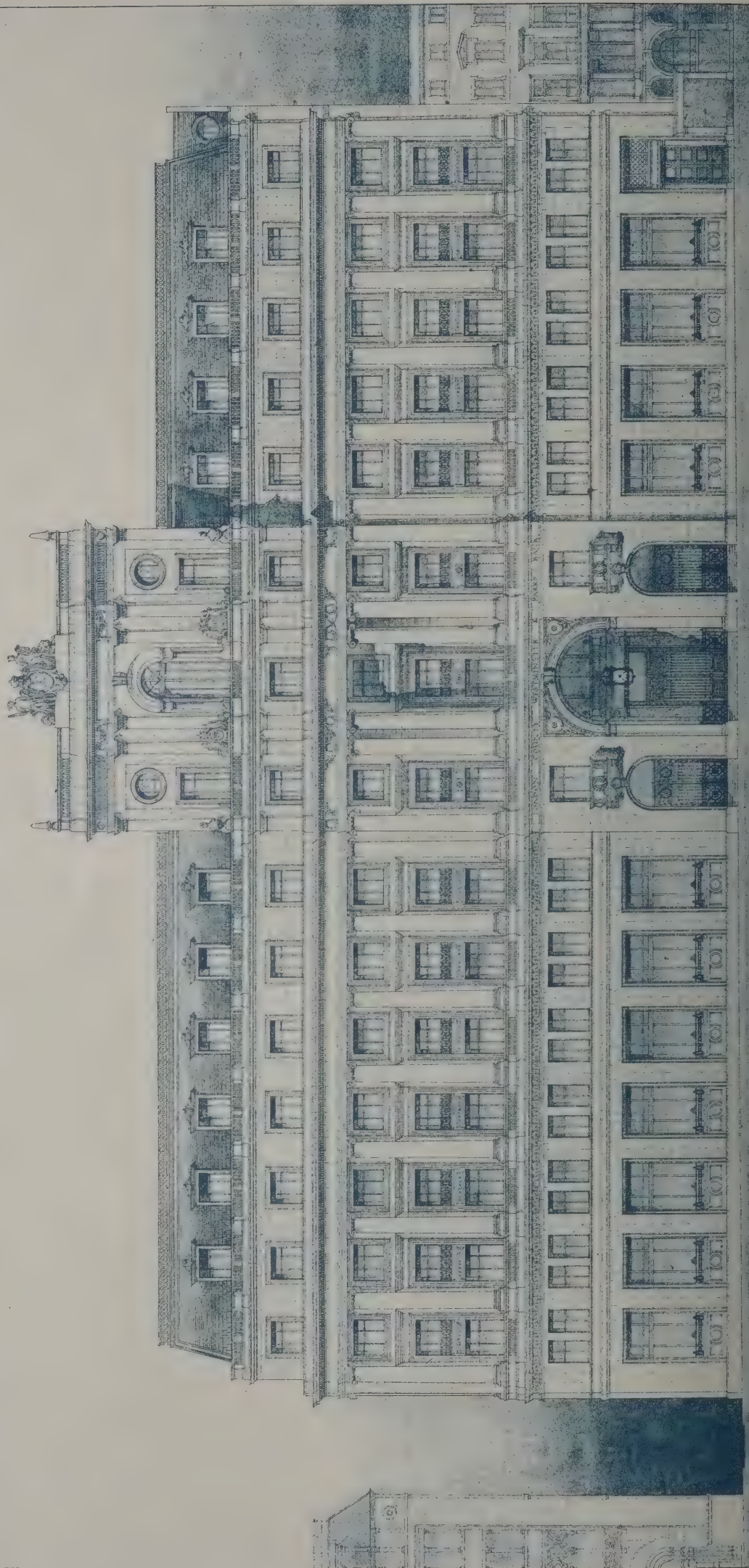
LONDON COUNTY WESTMINSTER & PARR'S BANK LTD.:  
REBUILDING OF HEAD OFFICE, LOTHBURY, E.C.—SELECTED COMPETITIVE DESIGN.

MEWES & DAVIS, ARCHITECTS



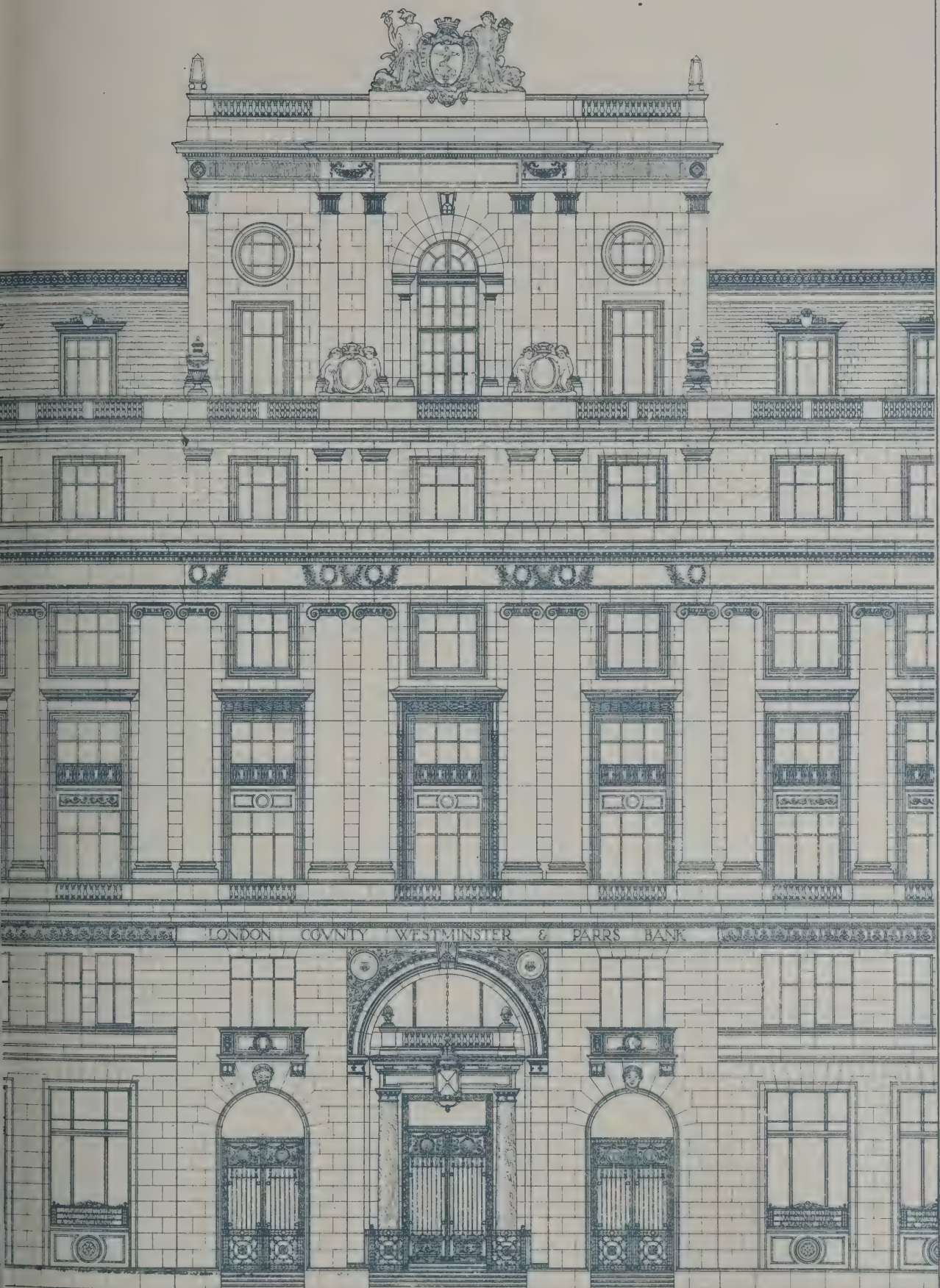






LOTTERY ELEVATION.





DETAIL OF CENTRE PAVILION.  
LOTHBURY ELEVATION.

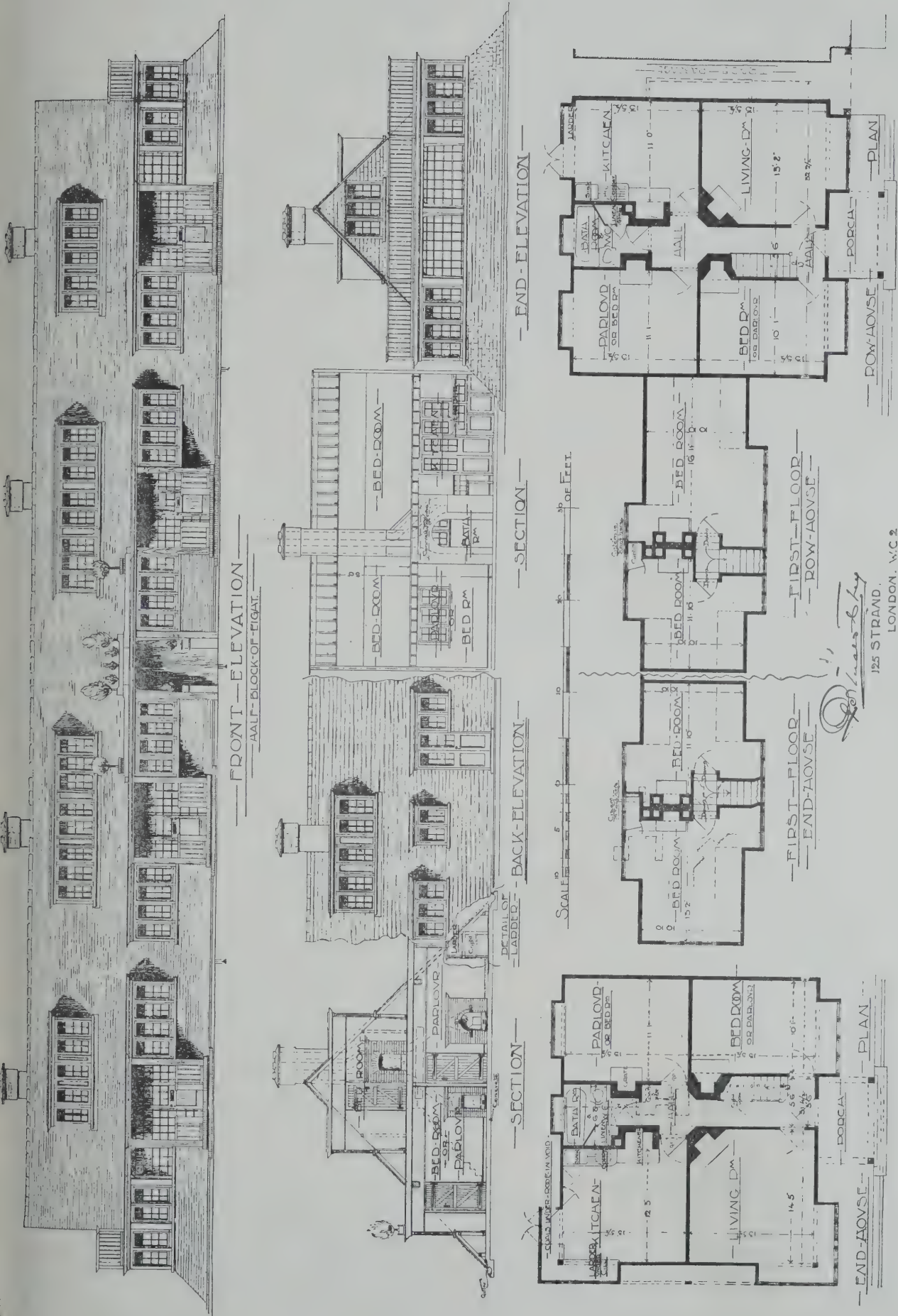
PHOTO-LITHO, SPRAGUE-HAYCOCK (PRINTERS) LTD. 69 & 70, DEAN STREET, LONDON, W.1

LONDON COUNTY WESTMINSTER & PARR'S BANK LTD.:  
REBUILDING OF HEAD OFFICE, LOTHBURY, E.C.—SELECTED COMPETITIVE DESIGN.

MEWES & DAVIS, ARCHITECTS









### The Qasr El 'Aini Hospital Competition.

THE exact wording of the condition in the above competition conditions, which we think most objectionable, runs as follows: "Should any disability of such competitor, or other unforeseen circumstance, render it, in the opinion of H.H. Government with the approval of the assessor, contrary to the public interest to appoint as architect the competitor whose design is placed first by the assessor, H.H. Government may, with the approval of the assessor, adopt the design of another competitor and proceed with it, subject to the foregoing conditions, as though it had been the design first selected, or may decline to proceed with any of the designs submitted, and the author thereof, including that of the design placed first, shall be entitled to no payment beyond the aforesaid honorarium of five hundred Egyptian pounds." "Contrary to the public interest" might be in the opinion of H.H. Government expressed in the following terms: "we feel that the Nationalist feeling in the country will be affronted by the selection of an Englishman to carry out an important public work when there are probably Egyptian or other nationals who might be given the work." Obviously if such conditions arose the President would hardly be in a position to say that he did not agree with the advice tendered by H.H. Government's advisers. If he urged that he did so what would happen? H.H. Government might shelve the whole of the designs submitted, paying the competitors, including the author of the design placed first, £500 (Egyptian).

Who can definitely say in the face of recent anti-English outbreaks in Egypt that these conditions are impossible? The Egyptian Government is also given the right of purchasing the copyright of any design other than that placed first for the sum of £500 (Egyptian). Why we may ask, unless to utilise it as they like? If these exceptional safeguards have to be introduced the least competitors can expect is that H.H. Government should undertake, in the event of the author of the design placed first not being employed, that he shall receive a sum of at least £10,000 or £15,000 by way of compensation.

Alternatively it would be better if H.H. Government stated in the conditions the nature of the reasons of State which might cause it to exercise its powers of objection, and competitors would then know whether they were likely to come under the ban.

Again, what is "any disability"? Does this mean physical, mental, or moral? A blind man is unlikely to compete, though we may perhaps say a man is blind if he does compete, in view of the conditions. Would a deaf or dumb man suffer from a "disability" in the terms stated, or would a man whose medical adviser states that he is prone to attacks of malaria be barred? Perhaps it is some moral taint that is in the mind of the framers of the condition. We should have thought that the fact that an architect had been able to send in a design, which the assessor placed first, would have shown his ability and proved that he did not suffer from a "disability."

But, if, on the other hand, the clause only means that if the successful architect dies or is prostrated by a permanent malady he will not be appointed, it seems to us it would be very easy to say so.

But, as things are, the profession will show itself very fond of lotteries if it responds like one man to this carefully-qualified invitation.

### New Books.

"Design and Tradition." By Amor Fenn. Chapman & Hall. £1 10s. net.

THIS is a well and clearly written book giving a short account of the principles and historic development of architecture and the allied arts. It is divided into sections, of which the introductory one gives many terse and well-considered conclusions which are useful to the student as general directions of what he should aim at and avoid. This is followed by a good historical review and by chapters on mouldings, architectural proportions,

the division of surfaces, the development of conventional ornaments, treatment in design, mythology and symbolism, and ways and means. It is easy and cheap to point out that such works must in the nature of things be very elementary, but that is not against them if, as in this volume, elementary facts are presented lucidly and well. The book is primarily intended to help beginners in the decorative arts by teaching them the main principles and meaning of the great art which encompasses all decoration, and without such a general knowledge—which can be indefinitely extended—the young decorator would go astray. He is, in Mr. Fenn's book, given a key to a common entrance which he should pass through, whatever his ultimate direction may be. The book is very well and clearly illustrated, and can be recommended to all beginners, for the unity of the decorative arts with architecture is well and clearly set out. Many authors choosing such a title would give us frothy and fervid eloquence explaining more or less clearly their own exceptional insight into the meaning of things, but the author has—we think wisely—let known data about the facts of structure and decoration teach their own lesson, and though it is true that we have read many books covering a similar field, we have seldom come across one in which it was better cultivated.

"Reinforced Concrete: A Treatise on the Theory and Practice of Reinforced Concrete Construction." By W. Noble Twelvetrees, M.I.M.E., A.M.I.E.E. Sir Isaac Pitman & Sons, Ltd. 21s. net.

ADDITIONAL interest attaches to Mr. Twelvetrees' new Treatise on Reinforced Concrete in consequence of the fact that it is the first book in the English language embodying the Standard Notation for Engineering Formulæ. Mr. E. Fiander Etchells has contributed a special foreword on this subject, giving its history and explaining the new system. It should undoubtedly simplify the work of author, printer, and reader alike, and we trust to see it adopted in other countries.

But, as Mr. Etchells points out, this is not the only claim of the book to distinction, for it probably contains a more complete set of formulæ for the resistance moments of various types of reinforced concrete beams than any book hitherto published in this country. Mr. Twelvetrees has not attempted the impossible and tried to deal with his subject in all its intricacies in this volume, but has confined himself to a thorough exposition of the fundamental principles and to the presentation of a complete series of formulæ for the principal classes of members employed in engineering and building construction. The treatise is a very clear statement of the general characteristics and distinctive properties of reinforced concrete and its construction. The author also discusses the principles underlying the design of homogeneous members, showing how these principles are applied to the evolution of formulæ for the design of reinforced concrete members of different classes.

The book is divided into eleven chapters, the first four dealing with the general characteristics of reinforced concrete, the constitution and properties of concrete, reinforced steel, and the two materials combined. They are followed by two chapters on the theory of reinforced concrete, the rest of the treatise being devoted to formulæ and their evolution, with a closing chapter on working stresses, &c.

THE professional practice of the late Mr. H. B. Ransom M.Inst.C.E., 3 Victoria Street, S.W. 1, has been transferred to Messrs. Dolby & Williamson, consulting engineers 8 Princes Street, Westminster, S.W. 1, to whom all correspondence should be addressed.

THE Surveyors' Institution will hold a special general meeting to consider the supplemental charter and amended by-laws at the Institution on Tuesday, May 10, and a confirmatory meeting on Monday, May 23. In the event of the members then signifying their approval of the proposed alterations and additions to the existing charter and by-laws the necessary steps will be taken to place a humble petition before His Majesty for their sanction.



## London Art Galleries.

(All rights reserved.)

Two exhibitions opened on Saturday, April 9, but which I have been compelled to hold over to the week following, are those of the Leicester Galleries and of the Royal Society of British Artists. This last, which is the 155th exhibition of this Society, held in its own fine rooms in Suffolk Street, W., shows this year some interesting work, especially in the landscape. Entering the first room (North-West Gallery), we find Hely Smith's "Upper Mall, Hammersmith"; and a little group of three paintings, showing good drawing in the architectural design and equally good colour, these being Orlando Greenwood's strongly handled "Gateway to the North," in which the classic columns of a London station entrance compose admirably, and on either side of this Enoch Ward's "St. Martin's in the Fields" and "A Span of London Bridge," by Captain R. Borlase Smart. Two paintings to be noticed in the same room are J. Littlejohn's brilliantly handled "Gossip," and Charles Simpson's study of bird life in "The Sand Pool."

The Central Gallery, too, contains some good landscape in Fred Foottet's "Mountain Landscape," with its rich purple tones, and Leonard Richmond's no less fine "Mountains near Barmouth, North Wales." These are two exceptionally fine works, but in the same room must be noted Marcella Smith's "St. Ives from the Coastguards" and "Beacons," by Charles Ince, on either side of the President's beautiful study of "Eros." Mr. Solomon J. Solomon has here imagined a young Cupid embraced by his Psyche, as the Poet Laureate has written in his "Eros and Psyche":

. . . upon her face  
A kiss, and with two gentle arms embrace  
A voice that called her name in loving play.

The two young figures here are of great beauty, the drawing and colour clean and finished. In the same room is Charles Clifford's "Sussex Downs and Pastures" and Robert Morley's "When Spring comes in," as well as another work by Fred Foottet in "The White Bridge, Moonrise." It is difficult to judge here of the colour scheme, bold though it is, of Mr. Saunders Spackman's "Where the stately pines do whisper" on the end wall, for it suffers from its juxtaposition to the yet more insistent yellow and black stripes of "The Tiger Chair," by Mr. Taylor, which hits even harder E. A. Hope's charmingly painted "Daffodils" beneath it.

In the water colours (South-East Gallery) of considerable interest in its subject is Captain Borlase Smart's well-drawn study of Jordan's Barn in Buckinghamshire, which has lately received a good deal of attention from the theory which has been put forward that the fine timber roofing here shown was made from the hull of the *Mayflower*. Miss Canziani's "Dawn" shows the figures of a woman and child watching the sun emergent over the sea, and in this room is a delightful little dry-point of a child, "After the Bath," by Linley Richardson. Among the water colours are also to be noted the work of J. Littlejohn ("Evening, Sussex"), Chuji Kurihara ("Evening on the Grand Canal, Venice"), another Venetian subject, that grand baroque church of S. M. della Salute, by Barry Pittar, and the same artist's "Lisieux"; Carruthers Gould ("Winter—Hindhead"); and Harry Theaker's "Wheattham, Hants." The exhibition keeps a good level throughout, the work of Orlando Greenwood, Borlase Smart, Foottet, and Leonard Richmond being very noticeable.

At the Leicester Galleries a very interesting display of water colours of Morocco is contributed by Mr. Robert Burns, who, I understand—as, indeed, his name would suggest—hails from across the Tweed, and is better known in Scotland than here. That, if it is so, is a condition of things which we might do well to alter, for there can be no question of the technical skill in these studies of Moroccan scenes and cities. If they have a fault it is that they are almost too even in their power, too easy,

too lacking in effort and in animation. That sunlight of Northern Africa, which the present writer knows well, has an intensity, a vibration where here we find the sense of diffused light. Architectural and figure drawing are almost faultless in these really beautiful studies ("A Portuguese Archway," "Bab Dekekne, Fez," "Covered Souk, Marakesh," "Women Selling Carpets, Marakesh"). Most imaginative is the goatherd at Mazagan, a girl looking out on the pale sky with a crescent moon; but can it be from carelessness that in his "Orange Sellers" the artist twice paints his oranges as rounds of rich colour, with a high light always in the same place, and no attempt to give the roundness by indicating the under-shadow?

In the room within Mr. Wyndham Lewis exhibits his "Portraits and Tyros," and has kindly offered us a foreword of explanation, which is really needed. That great Spanish master, Francisco Goya, in his "Caprichos," brings upon the scene a whole race of "elementals," his "Duendes" or "Duendecitos," who, often in the garb of priests or monks, satirised Spanish society without too far committing the artist. Here, too, Mr. Lewis brings before us his "elementals" under the name of "Tyros"—which has the fault that it is already an accepted term for a novice in any profession; and as he tells us, "These immense novices brandish their appetites . . . lay bare their teeth . . . these laughing elementals are at once satires, pictures and stories." It is a little difficult here to be sure as to where our "Tyros" begin, and whether Miss Iris Tree, with her face and hair alike in tint, or the lady called "Praxitella," with a slate-blue face and wooden knuckles, or the "Nude No. 2," with a carmine-coloured back, are to be left outside; but we fell on surer ground with "A Tyro about to breakfast," or even "Mr. Wyndham Lewis himself as a Tyro," looking out on us with an immense smile at his little joke. In "Mary" we return to quite a human and well-drawn head.

The thirty-second annual exhibition of the Royal Drawing Society is now being held in the Guildhall Galleries. This is an excellent Society, and the work shown by children here is often very remarkable. "Movement," we are told, in the report, "attracts, and is poetic in telling its own tale. The mindful eye notes significant lines . . . expressed by the hand in snapshot drawing. Colour plays its chords on the key-boards of the retina." And there is really observation here in the pencil studies of movement, generally children dancing; imagination in some of the colour-subjects, such as "The Lobster Quadrille" and "Mountain Heights" (recommended by Queen Alexandra); and sympathy in the animal studies, such as Dorothy Wethered's little donkey and cat. It is a pleasure to see the children before the pictures—copying, criticising, and thoroughly enjoying this artistic feast. Mr. T. R. Ablett and his helpers are doing good work for the nation and for art.

S. B.

## Art News of To-day.

THE death last week of Mr. William Strang, R.A.—within only a few weeks of his election as a full Academician—at the age of only sixty-two, removes a leading figure from the art world here. Mr. Strang was the son of a Dumbarton builder, and began life in the office of Messrs. Denny, the well-known shipbuilders. But the impulse towards art asserted itself, and he was sent to the London Slade School, where—with H. S. Tuke as one of his contemporaries—he worked for six years under Legros, and during his last year took charge of the etching class under that Professor. This experience helped to give him that complete mastery of etching which he possessed, and which enabled him to print as well as etch his own plates. Notable subjects etched by his hand were "The Prodigal Son," "The Descent from the Cross," "Monks Praying," and "Despair." This artist also made many etched portraits, and was President of the International Society of Sculptors, Painters, and Gravers.



## The Royal Institute of British Architects.

AN ordinary meeting of the Royal Institute was held on Monday, the 18th inst., Mr. John W. Simpson, president, in the chair. After some new members had been formally admitted by the President, Mr. Alan E. Munby, M.A. (Cantab.) F.R.I.B.A., read a paper entitled

“THE UTILITY OF RESEARCH ON BUILDING MATERIALS.”

It may be argued, said Mr. Munby, that technical matters should be left to pure technicians, the architect confining himself to questions of planning and design. Such a decision could not be lightly made, and could certainly not be fairly made for the profession by those whose work lies mainly in a purely artistic sphere, for however much we cherish art it would be found on analysis that by far the greater proportion of the livelihood of architects is derived from things in which artistic work has only a very small part. Architects accept technical responsibilities of all kinds as part of their professional work, and at the last ditch it is the architect, and no one else, who is responsible for his building and everything the contractor puts into it. He may safeguard himself by reserving means for personal redress against some party concerned, but the final liability is his.

We are apt to live too much in the past. Even a century ago building was a comparatively simple matter, and but few materials comprised the stock-in-trade of the constructor. But we actually find instances of great architects of earlier periods taking an active interest in practical science, parallels to which it would be difficult to discover to-day. Leonardo Da Vinci, not only a great artist but a man of science, had a combination of studio and laboratory for his work. Sir Christopher Wren, in 1659 was one of the first pupils of Peter Sthael, brought to Oxford by Sir Robert Bayle. Sthael is described as “a Lutheran, a great hater of women, and a very useful man,” and his laboratory was one of the earliest in this country. Surely if any excuse were needed for pressing the claims of research we have it in this very early and classic example of Wren at the laboratory bench.

If Wren thought researches into the realm of science desirable in 1659, what of the modern architect to-day? A mere list of the materials he handles would have left our great predecessor dumb with astonishment. A host of patent materials, floorings, partitions, roof coverings, and builders' sundries daily flooding the market, and with one voice claiming to be all things to all men. Many of these specific things, before they come under the architect's eye, are woven into the engineering complications of a modern building in association with transportation, warming, lighting, power, and other services which form so large a part of most building contracts.

What, then, should be an architect's relation towards science? Mr. Munby held that it should be this, that he should have a sufficient general knowledge of science, obtained during his early education and developed in a manner showing its applications during his student career, to enable him to appreciate its value and understand, direct, and control, in a broad sense, the work of scientific experts whose assistance he may require to ensure the best use of the best materials in his buildings. Without some knowledge and appreciation of natural science it is manifestly unreasonable to expect any belief in the utility of research on building materials, since we must look to science for these researches.

After mining, the building industry is probably the largest in this country. The operatives directly employed cover very wide fields, while those engaged in the production and manufacture of materials used in building must be much more numerous. Some 750,000 operatives are employed in the building trade, and, on the assumption that eighty per cent. are on full work at one time as an average, this represents a wage bill of about three millions a year, apart from the consideration of other contractors' costs. As regards material, the annual production of building bricks is about three thousand millions, which,

taken at the present price of London stocks, represents £15,000,000. One hundred million tiles are made annually, worth possibly £800,000. The production of cement is at present 2,250,000 tons, worth some £10,100,000. Some 200 to 240,000 tons of slates are mined annually, worth some £7,000,000. The value of imported timber, excluding pit props, sleepers and staves has been given at no less than £66,750,000. In 1907, the date of the last figures available, home consumption of paint materials exceeded £10,250,000, which probably means £30,000,000 to-day. The aggregate value of other materials—e.g., marble, nearly £500,000, lead, zinc, brass, glass and other minor materials—must be considerable, but omitting these and steel we have an annual value of some £130,000,000, or a sum well over half our pre-war national revenue. These are figures for materials; but when we reflect that a labourer's wage is almost four times and a skilled worker's wage nearly three times pre-war cost, and regard the resulting prohibitive price of building which is threatening the whole industry, the value of any investigations likely to improve the durability of our materials and add to our knowledge of their most appropriate employment seems obvious. So few manufacturers in this country have any real training in science that the possibilities of research are by no means widely appreciated. At the present time in Germany four new separate institutions for research are said to be projected, while in America three large trading concerns alone spend together about a quarter of a million annually and employ six to seven hundred people in such institutions. The Bureaux of Mines, Agriculture and Standards are national centres for research, while the investigations of such bodies as the Smithsonian and Carnegie Institutes have a world-wide reputation. Though technical research here is still in its early stages, no country has produced individual men of science superior to our own. The National Physical Laboratory, as also the Geological Survey and Museum recently come under the control of the Industrial Research Department, are responsible for encouraging and co-ordinating research in this country, and under it a Board of Building Research has just been formed; but funds for such work are generally very inadequate and are likely to remain so until public opinion alters the situation, and as far as building is concerned Mr. Munby submitted that it is the R.I.B.A. which should lead such opinion. Putting the annual cost of building materials in this country at as little as £100,000,000, an improvement in materials averaging only five per cent. would leave a very handsome margin of profit—apart from additional peace of mind to architects—after deducting a few hundred thousands a year for interest on capital and current expenses which the requisite investigations would involve.

The utility of research is well exemplified by the extraordinary improvement in certain materials, the result of rigid demands by engineers. Steel, which can now be obtained of uniformly high quality suitable for a great variety of purposes by making very trifling but all important changes in composition, is an obvious instance. Cement, which we can now so comfortably specify as having to conform to the British standard specification, is another striking example. The high and certain qualities obtainable in these materials is the result of patient research stimulated by demand. If we could purchase our materials on the basis of the essential qualities we wish them to possess, stimulus to improvement would be vastly increased. Suppose, for example, that we bought cement by strength and paint by durability instead of by the more primitive standard of weight, in which we are not the least interested, and which attribute is indeed an incumbrance, how much material of poor quality which masquerades as “best” would disappear from the market, and how the best would improve merely for commercial gain. Such form of purchase may not at present be practicable in many cases, but we should keep this point of view in front of us.



It is to be feared that our supineness on certain small matters which could easily be rectified by more rigid demands often leads to troubles quite disproportionate to their initial causes. Mr. Munby cited one instance. We are constantly troubled with cases of dry rot in timber, and in those which have come under his notice quite half are due to defective rainwater pipes. Now, the ordinary rainwater pipe is so cast that it is usually thinner at the back than in front, hence its vulnerable unpainted side readily perishes and the pipe leaks against the wall, the defect being often undiscovered until some dormant spores, wakened into life by moisture, begin their ravages upon the ends of joists or other internal timber. Were these pipes more rigidly specified, the immediate result would no doubt be trouble, delay, and increased cost, but this might be got over by giving notice in advance of an R.I.B.A. standard to be required, and very soon defective goods would be ruled out of reputable work with great national saving.

There is a great deal of work to be done on building limes, which are capable of improvement and are in every way suitable for much work in place of Portland cement with considerable economy. A small Government publication from Washington shows how vastly in advance of ourselves the Americans are in the use of these materials, and how much an organised research in this industry, which seems to have had little attention from our scientists, is wanted.

Public interest has been lately much aroused on the question of the decay of stone in our national buildings. The R.I.B.A. Science Committee has had this subject in hand, and, thanks to the generous co-operation of H.M. Geological Survey, the results of a ten years' exposure test on a number of common building stones are now under consideration. The durability of a stone often depends much more on the character of a small percentage of cementing material than on that of its main ingredients. Scientists have yet told us little about the real meaning of adhesion and cohesion, and we seem a long way from any standards by which to measure these important properties.

We are all conversant with the disastrous defects which often occur only after some years in roofing tiles. This subject again the Science Committee has been endeavouring to tackle, and has collected a number of defective samples. A careful report is wanted on the conditions of manufacture and an investigation into the subject of shelling, lamination, and the effect of slope angles and climatic conditions. Why should the old tiles last 150 years, while many modern ones are hardly able to stand a single decade?

Bricks used in such vast quantities require more attention as regards impurities such as fragments of lime and objectionable soluble sulphates. The danger of lime in bricks and tiles, of course, arises from the great expansion resulting in the presence of moisture. Fortunately, lime is very easily detected. The "salting" of bricks again, due largely to sulphate of soda, often has disastrous effects on decorative work, and this efflorescent material may be formed by faulty firing and bad coal, even if absent in the original clay.

Timber in its converted condition is a material upon which many researches are urgently needed. Most of our other materials are of mineral origin, and their decay is due to oxidation or other chemical reactions which limit the field to the work of the chemist, physicist, and mineralogist. Here, however, we have an organic edible substance open to the ravages of insects and fungoid growths. We are all conversant with the defects produced by boring beetles or worm, though the work of these industrious insects is often neglected. More dire and urgent is the terrible scourge of dry rot caused by the fungus *Merulius*, which almost amounts to a national plague, much accentuated since the war as the result of the use of sappy and unseasoned timber and the inevitable neglect of property, which has often allowed deterioration to extend so far that insufficient protection from weather has resulted. What the annual cost of this pest

is it would be unwise to hazard. Yet we have not a single recent comprehensive volume on the subject in this country and but few workers, and these mostly engaged also on other duties. We want an organised body of whole-time workers prosecuting researches into the entire subject of diseases in converted timber, and probably few national investments would pay better. In dealing with a material the total annual value of which is over eighty millions, it would not seem unreasonable to ask for a quarter of a million to provide and endow a suitable institute. We want first a ready means for detecting spores of *Merulius* and *Polyporus*, an investigation into distribution of the disease, which is known to be specially prevalent in certain districts, and then the consideration of regulations which shall bring this infection under control. Is there any real reason why this disease should not be virtually stamped out, and could not this be effected by the Board of Agriculture and the Board of Trade when the mycologists have told us more? The other end of the disease problem is the production of timber so treated and seasoned that it will better resist decay.

The discovery of a metal strong enough for structural work and cheap enough for use which will resist atmospheric corrosion and therefore will not require the services of the painter does not seem an impossibility, and such a discovery would be worth many years of well-paid research work. Even if an alloy research failed some skin treatment at the time of manufacture might prove effective. The decay of zinc is really a very serious matter for owners of small town property and probably depends in a great measure on impurities in the metal. There is no special difficulty in preparing pure zinc, nor should it be prohibitive in cost. It would be a comparatively simple matter to produce cost and durability statistics for various qualities of this metal.

Paints and varnishes, perhaps the most difficult of materials to assess, need more experimental work. For example, experiments made some years ago in America showed that in two similar paints the size of the solid particles were respectively 125 and 2,500 to the linear inch, and that the latter had twice the durability of the former. Oxide of iron paint in oil varies in price more than 50 per cent. according to quality, but very slender means exist for ensuring that we get the best when we demand it. The different materials used in the paint trade, including the vast numbers of pigments, do not number much less than a thousand. Among the 150 pigments in common use about 17 per cent. are liable to fade, and this is a subject worthy of investigation. The nature of the gums and resins, a most difficult subject, is yet imperfectly understood, and varnishes which are made from these resins are open to much adulteration. Though painting may be a very small matter in an initial building contract, its periodical repetition makes the material really important. It has been recently estimated that the black smoke of Manchester costs that city annually three-quarters of a million, and much of this cost must be due to paint renewals.

The R.I.B.A. Research Committee started an investigation on the improvement of pavement lights, and, through the kindness of an optical expert and the makers samples of a new glass have been exposed in a London pavement for three years. The results of this experiment do not promise to be satisfactory, but it should really now be possible to produce a transparent medium able to resist abrasion, which would result in great improvement to much basement property.

#### DISCUSSION.

Sir Richard Glazebrook, K.C.B., in proposing a vote of thanks, said Mr. Munby had put forward a plea for further investigation which it was impossible to resist. The paper had indicated the various ways in which science had helped the building industry, and how it might help in the future. It was to be hoped that their meeting held that night might prove the commencement of a movement by which scientific men would help more



than in the past. Special difficulties had formerly arisen. In the early days of the National Physical Laboratory one of the subjects considered was the need for testing building materials on a large scale. At first it proved impossible. Later Sir John Cowan, a director of Messrs. Redpath, Brown & Co., in view of the urgent need for investigating ferro-concrete, generously offered to provide a testing-machine. However, the war came before that machine was built; but such progress had since been made that they would soon be able to go on with the scheme. Another question investigated dealt with the thermal properties of materials in building. Various tests were carried out with galvanised iron and with materials made of cement or plaster with fibre embedded. The materials used in cold-storage work are now under investigation. Research work upon bricks, stone, and concrete slabs will soon be undertaken. Another problem now under consideration was the devising of a roof for a picture gallery in which the light should fall equally on all the walls; a big room is being set up on which experimental temporary roofs may be tested.

Sir E. Ray Lankester, K.C.B., F.R.S., recalled that when he was a boy an inquiry was conducted by scientific men, including his father, into the decay of the magnesian limestone used in the Houses of Parliament. Eventually a resinous paint was applied to the surface. The terrible state of decay to be seen at Oxford was due, he understood, partly to a mistake as to the manner in which the stone had been laid and partly to the quality of the local material itself. A reference had been made to the versatility of Sir Christopher Wren; he might mention that that architect had prepared the drawings of the human brain which illustrated a book by Willis. So Sir Christopher extended the sphere of his activity even beyond building materials. Investigation could not to-day be set up as an architectural research; but the problems might be propounded by architects and answered by bodies like the National Physical Laboratory. The study of fungus, for instance, was an immensely lengthy and difficult one for which the answer could not be obtained rapidly. All that the R.I.B.A. could hope to do was to point out what they wanted to know and then to leave the investigation to others. He might add that Mr. Munby's address had been a revelation to him as to the enormous area of knowledge which the architect has nowadays to cover.

Mr. H. O. Weller in explaining the position of the Industrial Research Committee said they merely hoped to be a clearing-house. In every investigation decided upon they got hold of experts to do the actual work. Their policy had been to survey the ground first and then to attack the fundamental problems solely. A beginning had been made with researches into cement. The paint research would include a search for new bases or mixtures to be the best substitute for lead. They looked for standard specifications of sand lime brick, and iron Portland cement. The public ought to be given greater confidence in the latter very excellent material which at present suffers in England from confusion with slag cement. The Committee were working on a few new material, such as flooring, and a new cement base. The transmission of heat through materials was another point. But the Committee was open to suggestions—any received were carefully considered. There was one branch in which he would especially like the help of the Institute, and that was in the study of failures. Failures should teach far more than successes. Any information on that aspect would be very useful.

Mr. J. Allen Howe, of the Geological Survey, confessed he had come to the conclusion that the researches carried out during the last ten years into stone were not used by architects and engineers. Stone itself differed from most of the other materials used in building in being a natural material which has to be taken as it comes. That very individuality, however, gives charm to a building, as each stone has a character of its own. There seemed no use in going on with the research work from that point of view. The Geological Survey intended soon to commence to make out the story of each kind of stone,

and they looked to the Royal Institute as to guidance of what was sought. Any tests which might prove useful would be undertaken. He had sometimes wondered why in places where stone is subjected to direct atmospheric attacks there should not be put in place of it some other more suitable material which would not spoil the look of the thing. It seemed a little stupid to continue from sentimental reasons always to put the same material into those very positions where it was known that it would suffer. Of course, the question of cost was at the bottom of all the architect's troubles. The architect, for instance, might know the kind of durable stone he would like to put in, but his client would not pay the racket.

Mr. H. D. Searles-Wood briefly supported the motion.

Mr. John W. Simpson, in putting the vote of thanks to the meeting, pointed out that the duties of an architect covered an enormous field—perhaps a wider one than in any other profession. Fortunately, architects seemed preserved by a kindly providence from falling when they came to difficult places. An authorised series of simple tests were required for clerks of works. At present there were all sorts of rough-and-ready tests. Architects were looking for simple tests and simple remedies. The only thing they wanted to know about dry rot was how to get rid of it. It would be an enormous benefit if a small handbook on the lines indicated could be brought out.

The vote of thanks was then carried by acclamation.

Mr. Alan E. Munby having briefly responded, the meeting terminated.

## Competition News.

MEMBERS of the Society of Architects are requested not to take any part in the Hagley War Memorial Competition without first ascertaining from the Society that the conditions have been approved by the Council.

MEMBERS and Licentiates of the Royal Institute of British Architects must not take part in the Renfrew War Memorial Competition because the conditions are not in accordance with the published Regulations of the Royal Institute for Architectural Competitions.

THE Halifax Memorial Committee invite designs for a cenotaph proposed to be erected in Belle Vue Park, Halifax, the cost not to exceed £2,000. Premiums of £25 and £10 are offered for the designs which the Committee consider first and second in order of merit. Designs to be delivered not later than June 1. Conditions and all necessary information may be obtained from Mr. P. Saunders, the Town Clerk, on payment of a deposit of 10s. 6d.

THE R.I.B.A. Competitions Committee desire to call the attention of Members and Licentiates to the fact that the conditions of the Wick War Memorial Competition are unsatisfactory. The Committee are in negotiation with the promoters in the hope of securing an amendment. In the meantime Members and Licentiates are advised to take no part in the Competition. A similar warning to the above has also been issued by the Society of Architects.

THE Watford and District Peace Memorial Hospital Committee invite architects with experience of hospital planning to submit their names, from which twelve will be selected to compete for the proposed hospital of fifty beds extending to one hundred beds. The premiums offered are £100, £75, and £50. The Committee have appointed Mr. William A. Pite, F.R.I.B.A., as assessor. Competitors should send in their names not later than May 14 to Mr. H. Brown, J.P., "Lyndale," Upton Road, Watford.

At the last meeting of the Stratford-on-Avon Town Council it was reported that the Town Clerk and the Surveyor had attended a conference at the offices of the Ministry of Health, and it was stated that for a fee of 100gs. Professor Abercrombie, of Liverpool University, would prepare a report indicating how Stratford-on-Avon should be developed, and how its special character and charm could be preserved. Sir Martin Conway said he had a sum which would be available if the committee cared to accept it on terms, and the Town Clerk was instructed to inform Sir Martin that the Council would be very glad to accept his offer.



## Future Housing Policy.

SIR ALFRED MOND, the Minister of Health, recently received a deputation from the Association of Municipal Corporations (introduced by Lord Emmott), and made the following important statement with reference to the future housing policy of the Government.

Under the present Regulation the general housing subsidy only extends to July 1922. It is obvious that where local authorities have, with the consent of the Ministry, entered into commitments and where the delay in completing their schemes is due to such difficulties as the procuring of adequate labour and material, arrangements will have to be made to extend the payment of the subsidy for a reasonable period. This, however, must not be taken as an encouragement to local authorities to be dilatory in carrying out the work they have in hand.

Local authorities can rest assured that there is no intention on the part of this Department or of myself to deal with them unfairly or to take advantage of them. We quite realise that they have, with our approval, entered into financial commitments. The Government have got to fulfil their obligation in a perfectly straightforward manner.

I have been asked to make a statement as to the obligations which are contained in Section 1 and Section 7 of the Housing Act. When the system of subsidy no longer operates, it is obvious that we shall not exercise our powers in any kind of unreasonable or unfair way. It will not be impossible that when we arrive at the end of this housing scheme that the Government may be ready to enter into another scheme should it be necessary. The time to consider how far the Act of 1919 will have to be modified will be when the operation of that Act is drawing to a close. All I can say at present is that as far as we are concerned default powers, which are, of course, rightly inserted in the Act, are not going to be used to compel local authorities to carry out ruinous schemes.

The Government do not intend to extend the present system indefinitely. A limitation of the number of houses to be built under the housing scheme will have to be arrived at and the number of rejected schemes will have to be reduced. It has been very difficult to ascertain really what the total number of houses required in each district is, and we find in many cases that the original estimates were rather more what the idealists conceived than what the practical man considered necessary.

Every effort must be made to obtain modifications of the contracts already let in view of the falling prices in material and labour. Unfortunately, owing to circumstances which nobody could have controlled, most of our contracts have been let at the top of the market; but there is no doubt that a careful scrutiny in every case of the terms and conditions of contracts will enable us to get savings effected.

In view of the fact that we have a great deal of work in hand, we ought to go slow in accepting future tenders. With a falling market no business man is in a hurry to commit himself. The policy of rejecting tenders as too high is a perfectly sound one. I have been asked to state specifically in money what in my opinion a reasonable reduction in the cost of houses should be, but if we were to send out a circular to local authorities giving the prices of which we approve, no builder would ever tender below those prices. We find that prices are coming down and there is more competition in the last few months in the building trade.

Our broad problem remains the same. We have to erect houses of a reasonable standard at a reasonable expenditure; we have got to cut our coat according to the amount of cloth we have.

The Burton-on-Trent licensing justices have approved plans for modernising the Queen's Hotel, the oldest first-class hostelry in the town, which has been licensed since 1531.

## Correspondence.

### A Question of Patent Rights.

To the Editor of THE ARCHITECT.

SIR,—I note that in your issue of the 8th inst. that you publish designs of Mr. Robert P. Oglesby, of 26 East Castle Street, Oxford Circus, W., of four houses proposed to be erected at Mill Hill, N.W.

I beg to remind you of the fact that you published some designs of mine on May 28, 1920, showing houses planned upon the same principle, with notes that they are protected by Letters Patent No. 14944, as well as by Copyright.

Your notes were taken from my booklet, which also showed other designs, including blocks of four radiating from a common centre, which principle is the feature of the patent.

The publication of these designs is, therefore, illegal. Will you kindly insert a note in a conspicuous place in the next issue stating that the designs published infringe my Patent and Copyright?

I am a regular subscriber to your excellent journal, which I read with interest every week, and appreciate the space you gave to my scheme, although I was not entirely pleased with your criticisms, which I think somewhat misrepresented the effect of an estate designed on this plan.

I enclose my "Illustrations," showing an estate set out on this principle, and think you will see that the plan is not wearisome and that a regular chessboard effect is not a feature of the plan on flat paper, and much less would it be actually so in building.—Yours, &c.,

WILLIAM E. SANDERS.

118 Camden Road, N.W. 1.

April 15, 1921.

[The mistake was evidently quite unintentional as we have seen a design of Mr. Oglesby's made in France some years ago. Whatever the exact scope of the patent obtained by Mr. Sanders may be, a similar idea had evidently been worked out by Mr. Oglesby concurrently.—ED.]

### Higher City Buildings.

SIR,—In your reference to the proposals for permitting higher buildings in London which appeared in your issue of the 15th instant, I observed a reference to the proposed reform in the law of Light and Air. This matter has not been dropped by the Royal Institute. The draft Bill which was prepared by the late Mr. Henry T. Hare during his Presidency has been submitted to His Majesty's Government, and pressure has been continually applied in the hope that the Bill will be taken up as a Government measure and passed into law. We have no intention of relaxing our efforts in this direction. Architects who are interested in the subject will find the text of the draft Bill in the R.I.B.A. Journal for December 1918 (page 45).—Yours, &c.,

IAN MACALISTER, Secretary.

The Royal Institute of British Architects,

9 Conduit Street, London, W. 1.

April 18, 1921.

THE Worcester City Council dealt last week with reports from the Housing Committee on the subject of concrete construction. The Housing Commissioner had stated that he objected to the substitution of concrete for bricks in the construction of any of Messrs. Rowbotham's houses on the Northwick site; but as regards the other sites, the Council could substitute concrete if they accepted responsibility for the change, and clearly understood that any cost in excess of the cost of brick houses would have to be paid for by the Council, and not out of the housing account. A previous recommendation by the committee was now withdrawn, so that Messrs. Rowbotham might complete the erection of their 111 houses on the Northwick site in brickwork.

At a meeting of the Sheffield Corporation on the 13th inst. it was stated that the Housing Commissioner had objected to the amount of the tenders for the concrete houses on the Manor Estate, and, as a result of conferences with the builders, it had been found possible, without materially interfering with the designs, to reduce the amount for the 397 houses from £311,378 to £297,610. The amended tenders were accepted. A councillor called attention to the work of the Building Guild, which, he said, had erected houses not far from Sheffield at a reduction of about £200 each as compared with what the Corporation were paying for brick-built dwellings. In reply it was explained that the committee had gone into the question of inviting the Guild to tender, but they thought that the scheme which they had in force with the builders was the most satisfactory.

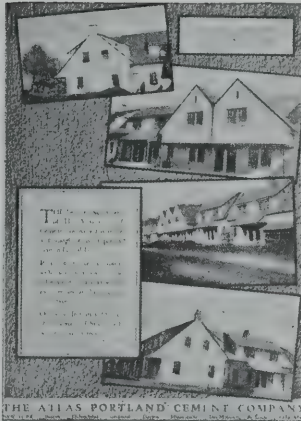




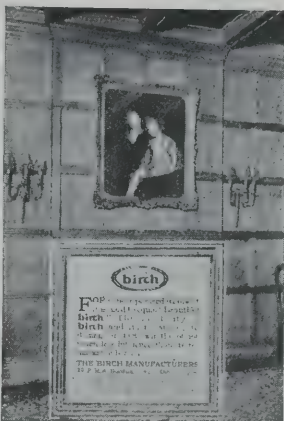




No. 9.



No. 10



No. 11



No. 12.



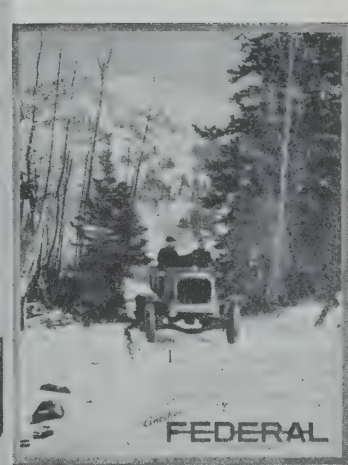
No. 13.



No. 14.



No. 15.



No. 16.

of a patent with five parts by the four fingers and thumb of a hand. No. VII. is another clever advertisement of a drainpipe emphasised by a figure in white testing with acids.

In No. VIII. a very telling advertisement of the toughness of Bishopric Board is emphasised by the introduction of a bulldog. We are told by an advertising expert that this is a type of technical advertisement which does not pay in this country because the introduction of humorous matter or comparisons is resented. If this be so, it is to be regretted since humour is the salt of life and adds to its zest. Possibly many of us are like children secretly ashamed of showing our enjoyment in small things, but, if so, our great commercial firms have a fund of experience in actual fact to draw upon, and will naturally abjure an amusing type of announcement. IX. is a telling and unusual advertisement of a pressed brick in which a large hand holds up a house placed on a stand. In X. we have a pleasing advertisement of a Portland Cement Company which takes the form of a number of photographic views of buildings; this is a most effective type of advertisement if well designed and grouped.

XI., XII., XIII., XIV., XV. and XVI. are good examples of the artistic advertisement in which the casual reader is attracted by pleasing character and composition.

We claim that these examples are on the whole of superior design to the majority of advertisements in our papers, and the design and invention displayed in them is a distinct asset to the advertising firm whose money is expended. The main point about a good advertisement is that it should be distinctive and striking, well placed on the page, clearly printed, and, if possible, of good pictorial value. If in addition it contains some telling use of language, it is not likely to be overlooked.

# "The Architect" Fifty Years Ago.

APRIL 22, 1871.

THE PROPOSED ENLARGEMENT OF BILLINGSGATE MARKET. THE report of the City Markets Committee on the above-named topic, lately presented at the Special Court of Common Council, gives the following as its decision:—"It appears to us that the requirements of the market will be sufficiently met by extending the same up to the west side of Darkhouse Lane, and making such alterations and improvements in the construction and arrangement of the whole of the market as experience has shown to be requisite for the convenience of the trade and the due and proper carrying on and conducting of the business of the market; and after mature deliberation we have arrived at the conclusion that these objects may be attained at an expense not exceeding the sum of £150,000, including the cost of acquiring property not already belonging to the Corporation. We therefore recommend that we should be authorised to prosecute the Bill introduced into Parliament for the purpose of obtaining the necessary powers in that behalf."

THE University of Sheffield Department of Architecture opened their annual exhibition of students' designs and constructional drawings on Tuesday, April 19. It will remain open until April 23. Hours: Friday, 9.30-5.30; Saturday, 9.30-1 o'clock. Admission free.

SIR EDWIN L. LUTYENS, R.A., attending a meeting of the Spalding War Memorial Committee, submitted modified plans for the memorial. The original scheme would have cost £7,000; the new one is estimated to cost £3,470, and a tender for carrying out the work at this sum was provisionally accepted. The memorial will take the form of a cloister garden, to be erected in the Ayscoughfee Gardens at Spalding. Towards the cost Mrs. F. McLaren is contributing £1,000, and Lord Aberconway £1,000, and with subscriptions raised there is nearly sufficient to meet the estimated cost. Mrs. McLaren, it was stated, is paying the architect's fees.







## The Building Exhibition, Olympia.

No previous Building Exhibition has been organised and held under such difficult conditions as the one this year. The shadow of a seemingly inevitable general strike threatened at one time to extinguish it altogether. Fortunately for the exhibitors, the worst has not happened. But the shadow of a shadow still remains over industry and there is a feeling of uncertainty in the air. It might not perhaps be true to say that the sun is always shining over Olympia. It is certainly a fact that the visitor may see there how the building trade is in perfect readiness for the moment when the obscuring clouds have rolled away. Mr. H. Greville Montgomery considers that no exhibition yet held has been so replete with every up-to-date contrivance of value to the Building Industry. This assertion appears to be well justified. Olympia provides a liberal education for anyone concerned with the second largest industry of the country. There is much to be seen which is absolutely new, there is even more which is worth re-seeing.

The present Exhibition is under the patronage of the King. On Tuesday morning last their Majesties the King and Queen, Princess Mary, the Duke of York and Prince Henry paid a long visit to Olympia, and showed a lively interest in what they saw. Everyone directly or indirectly associated with building ought to follow their example before the Exhibition closes on the 26th.

The social side of the exhibition is being carried through without a break. The Architects Welcome Club has extended its activities to the entertainment by lecture and cinema of non-professional visitors. Last Saturday a reception was held and on Friday next there will be a dinner.

### THE CONCRETE INSTITUTE.

The Concrete Institute arranged a very successful luncheon at the Pillar Hall, on Tuesday last. The chair was taken by Mr. E. Fiander Etchells, the president. Amongst the guests present were Lord Salisbury, Lord Riddell, Sir Charles T. Ruthen, Sir Henry Tanner, Sir J. Thorneycroft, Sir Frank Newnes, Mr. F. Shingleton, (President of the Institute of Builders) Mr. H. O. Weller, Mr. H. Greville Montgomery, Mr. G. M. Burt, (President of the London Master Builders Association), and Mr. W. R. Davidge.

After the loyal toasts had been honoured, the Marquess of Salisbury in proposing the toast of "The Concrete Institute" said that though concrete might seem to be a solid and rather heavy subject to those who did not understand it, and to be one from which no romance could be got, yet really that was not so. Its history began in pre-historic times; nevertheless even now not all was known about concrete and its chemical incidence, its strength and its usefulness. New things concerning it were being learnt every day. Everyone must welcome any effort, such as the Concrete Institute stood for, towards a further knowledge and a wider use of this essential building material. This country and her dominions afforded magnificent examples of great engineering works. But in these days most people thought of a much simpler form of building, viz., the dreadful subject of housing. It would generally be agreed that no solution of cheapness was to be found in any further simplification of design. Certainly smaller houses might be built—many now being erected were larger than was wanted. Quite recently there had been a reduction in cost, and it almost seemed as if the problem might yet be solved on economic lines. If that could be achieved, something would be done to solve the problem of industrial unrest.

Mr. Etchells returned thanks.

Lord Riddell, in responding to the toast of "The Press," spoke of the difficulties he had experienced over the by-laws in connection with two concrete factories he was erecting. The trouble about modern government seemed to be that the things which were of importance were extremely uninteresting and understood only by experts. Our by-laws were in hopeless confusion and

hopelessly antiquated, and they ought to be revised as soon as possible; that was a work the Press ought to see to.

Mr. Etchells thought there was something to be said for the by-laws. There had been a steady diminution in the statutory requirements as to the thickness of party walls. In the Middle Ages it was enacted that in London they should be 3 feet thick. In the London Building Act, 1894, there is a requirement of 13½ inches. In the latest regulations with respect to buildings wholly or partly of reinforced concrete the minimum thickness of a party wall is cut down to 8 inches. Some people thought a hollow brick with sides 1 inch in thickness was sufficient! Perhaps at a future exhibition someone would come along with "Petrified Tissue Paper: The Best Substitute for Brick Party Walls."

Mr. A. Alban-Scott pleaded for a reform of the present stereotyped Building Acts. He thought that perhaps the line of least resistance would be to make every architect criminally liable for the buildings he designed.

This week we give a third series of notes descriptive of what is being shown on various stands. With so big an exhibition it is manifestly impossible to find room for an account of everything. But within those limitations we believe and hope that our readers will be able to obtain an idea of the many interesting and important things to be seen at Olympia.

Robert Adams (3-5 Emerald Street, Holborn, W.C.) have won at international and trade exhibitions no less than fifteen gold medals and sixty highest awards since the business was established in 1870. The exhibit on Stand 178, Row J, comprises a display of their own "Victor" fittings, and also a most attractive selection of decorative brassfoundry fittings for doors and windows from Messrs. P. & A. Picard, of Paris. The well-known "Victor" specialities include a series of door springs, with oil and pneumatic check; fanlight openers of many types; panic bolts of new design; door and casement furniture; sash balances; fasteners; stays; bolts, &c. The display of Messrs. Picard is described on p. 298.

Messrs. Battiscombe & Harris, Limited (47 New Cavendish Street, W.), as workers in fibrous plaster, carved wood, and carton-pierre have an opportunity for a decorative display such as many exhibitors must envy. Stand 130, Row G, proves the firm's full right to the title of architectural decorators. Mantelpieces, electric-light fittings, fibrous plaster caps, frames, and joinery in all branches make an attractive display.

Beaver Board Co., Ltd. (133-136 High Holborn, W.C.), demonstrate the decorative possibilities of their material by arranging part of Stand 94, Row E, as a finished room; a portion of the stand shows the method of fixing it in a practical manner. Beaver Board is formed of wood fibre pressed into panels ½ inch thick and of varying widths and lengths. Its use on Government housing schemes has been approved by the Ministry of Health.

Mr. George Blay (New Malden) has no less than four stands, two being in the annexe, Nos. 163 and 165, Row H, and two in the Gallery, Nos. 29 and 30, Row B. A considerable portion of the space is occupied by surplus Government hutments, of which over 6,000 were sold last year. Another section is devoted to joinery and woodwork from their timber mills at Honiton.

Messrs. Boulton & Paul, Ltd. (Norwich and 135-7 Queen Victoria Street, E.C.), specialise in wooden structures of every description, and are capable of supplying anything from a hospital to a dog-kennel. On Stand 215, Row L, they have limited themselves to joinery (doors, windows, and a carved fireplace) as made for housing schemes, and at the back of the stand is a section of the "B. & P." standard permanent wooden house, which conforms to the requirements of the Ministry of Health, and has been officially approved as eligible for the Government subsidy. The doors and windows are made on the mass-production system from well-seasoned timber, and are excellently finished. Large quantities are



ready for immediate delivery from stock at Norwich. In addition, all sizes and designs can be supplied to architects' special specification and delivered at short notice. Messrs. Boulton & Paul had to very considerably extend their works during the war to cope with Government orders, and are now equipped in a way they have never been before.

*British Roofing Co.* (150 Southampton Row, W.C.) can boast that more than one hundred million feet super of their Alligator Asbestic Slates have been supplied during the past four years. This material is made in grey, red, and blue, from the highest standard quality Portland cement, reinforced with asbestos fibre in one standard thickness, 11/64 in. All tiles are sent out ready cut and holed according to the style of roofing and overlap required. The firm is prepared to undertake the supplying and fixing on any job in Great Britain. Alligator Asbestic Wall and Ceiling Sheets are sold in thicknesses varying from  $\frac{5}{32}$  in. to 1 in., and in sizes from 3 ft. by 3 ft. to 8 ft. by 4 ft. The sheets can be painted, distempered, or enamelled exactly as woodwork. The company is also including on Stand 67, Row D, some of the products of the Burton Foundry Co.

*British Uralite Co.* (1908), Ltd. (8 Old Jewry, E.C.), have erected on Stand 98, Row E, a garage suitable for a light car. The inside and outside are covered with "Asbestone" sheets, while the roof is laid with "Asbestone" tiles and corrugated cement sheets. "Asbestone" is a material manufactured from asbestos and cement by a patented process. The flat sheets are in sizes up to 8 feet by 4 feet, and in thicknesses  $\frac{1}{8}$  inch to 1 inch. Corrugated sheets are made up to 8 feet by 3 feet 5 inches, and the standard thickness is  $\frac{1}{4}$  inch. Roofing tiles are made 12 inches by 12 inches, 16 inches by 16 inches, 18 inches by 18 inches, and 24 inches by 24 inches, and in red, slate, and natural colour.

*Buss & Elston, Ltd.* (2 Northport Street, Hoxton, N.), have set themselves out to prove how "with modern machinery and expert designing a real oak panelling can be supplied at a price within reach of any person of moderate means." Stand 221, Row L, exemplifies five different designs of period panelling, with a very pleasing ingle-nook as the central feature. It also shows another activity of the firm—viz., carton-pierre decoration, which so effectively combines with the first. Messrs. Buss & Elston, Ltd., are prepared either to carry out architect's designs strictly to detail, or to submit their own ideas. From what we have seen we think that there need be little fear of the latter failing to win approval. Furthermore, the firm are in a specially favourable position to quote the lowest possible price. They are machinists to the trade, and make, in addition to the foregoing, sectional bookcases, filing cabinets, and furniture. All oak and mahogany panelling supplied is framed up complete at their Hoxton works, and is sent out in large sections ready for fixing.

*Messrs. Cakebread, Robey and Co., Ltd.* (Caroba Works, Wood Green, N.) have devoted Stand 45, Row C, to the latest improvements in drain cleaning and clearing machines and allied appliances. On Stand 204, Row K, there is a comprehensive display of their goods as builders' merchants, manufacturers and wholesale ironmongers. The firm can supply practically everything for the building and repairing of houses.

*W. E. Chivers & Sons, Ltd.* (Devizes and Queen's Circus, Battersea, S.W.), are not in the catalogue, but one side of their work is represented by Stand 92, Row E, which they erected for Self-Sentering Expanded Metal Works, Ltd., in less than twenty-four hours. Speed of execution is one of the boasts of Messrs. Chivers. One contract for bungalows, amounting to £95,000, was completed within three months from date of order. The firm are manufacturers of woodware, joinery, wood turning, and portable houses and bungalows for home and export.

*Clark, Hunt & Company, Limited* (159-160 Shore-ditch, E. 1), introduce to Building Trade Exhibitions two of Mr. George Bailey's patents; one being a "Non-Pressure" Hot-water supply, the other is a bath boiler and portable range. In the first, any ordinary washing

copper can be made to serve also as a circulating boiler. From a 20-gallon close tank above, circulating pipes are led into the copper. When the water becomes heated the control handle is turned so as to open these two pipes, natural circulation follows, and the tank becomes full of hot water. The control handle is then moved to its first position, and the hot water may be drawn off from the delivery pipe in the bathroom or any other point. In the second patent an enlarged boiler rests upon the back of a portable range, the smoke flue passing obliquely through it. Hot water is drawn directly from this boiler the customary tank and circulating pipes being dispensed with. The boiler cannot be emptied or overheated. The type has been adopted in the Guildford Corporation's garden city at Stoughton. Both patents are on Stand 226A, Row L.

*B. W. Clegg & Son, Ltd.* (Hunslet, Leeds), at Stand 73A, Row D, recommend their "A.B.C." (All-Bond construction) system of concrete blocks for structures requiring walls 18 inches or more in thickness, though it may also be used for less massive work. A special portable machine has been invented for the manufacture of the blocks.

*Composite Concrete Construction Co.* (51 Pall Mall, S.W.) show the "Fidler" system, which was devised after many other methods had been experimented with on a large housing scheme near London. The concrete block method and the *in situ* method are here combined. Pre-cast clinker breeze slabs, usually  $2\frac{1}{2}$  in. thick, are erected on edge in horizontal course to break joint. The slabs are held together by wall ties across the cavity. No jointing material is used in fixing the slabs. The cavity—of three inches or other thickness—is filled with semi-liquid concrete up to about four inches from the top of the slabs as each course is laid, and this concrete fills the joints and keys the whole wall into one mass. On the company's stand, Bay 6, Gallery, two sections of walling have been set up, one being finished off and the other unfinished. To secure correct alignment temporary wooden right-angled profiles can be erected at each corner of the building. Joists rest on the slab and protrude into the cavity. The slabs in the same course as the joists should be made in the same height as the joists, and of a length to fit the spacing. The skeleton wood moulding frames are used for forming the blocks, and these can be made to any size, according to what dimensions it is decided to make the slabs. The mould shown on the stand is designed for casting twenty-six slabs at once. The fees for a house built by this C.C.C. patent system are as follows: £5 each house for the first 100 single houses; £3 each house for every additional single house up to 1,000; £1 each house afterwards. Pairs of houses are *pro rata*.

*The Crittall Manufacturing Co., Ltd.* (Braintree and 246 High Holborn, W.C.), make windows for every class of building. On Stand 139, Row G, there may be seen set up picturesque but modest casement types, which successfully compete in price with wooden windows for subsidised houses. Close by is the upper portion of one of an imposing series of solid bronze windows some 35 feet high to be shipped to Shanghai. Another part of the stand is fitted with a typical window for an office and also with factory sashes. And there are other types. All the windows (except the Shanghai order) are installed in solid masonry openings and properly glazed so that a correct idea of their effect in actual use can be obtained. Crittall Universal Casements are made in solid steel, Koperoid or solid bronze. Hanging on the walls of the stand is an air view of the company's factory at Braintree, which both illustrates their development and also the penalty of lack of courage. The founders, not being prophets, selected a site amply adequate for their immediate needs but incapable of the necessary expansion. As a consequence they have during the course of years had to add bits here and there as opportunity served. But there were limits to that, and now the company possess a big range of buildings on an open site in Witham, Essex.



*The Croft Granite, Brick and Concrete Co., Ltd.* (Croft, near Leicester), show in the Gallery, at Bay 24, a comprehensive range of the many products from their quarries in Wales, Jersey, and Leicester. The concrete department includes a "Barraclough" patent reinforced hollow floor and a standard patent reinforced flat roof; Croft Adamant "Acme" windows, consisting of artificial stone dressings and steel casements; drainage tubes; flags; kerbs; heads; sills and masonry. The brick department shows common bricks and specials, also hollow building blocks. The granite includes setts, channels, crossings, spur-stones, macadam, and chippings.

*Fernden Fencing Co., Ltd.* (Bridge Street, Guildford), exhibit both in the Gallery at Stand 8, Row B, and on the ground floor at No. 38, Row C. They are manufacturers of and contractors for fencing of all kinds, gates, garden furniture, pergolas, tree-guards, and flower-stakes.

*Ferodo, Limited* (Chapel-en-le-Frith and 222 Tottenham Court Road, W.), commenced, we believe, with the manufacture of friction linings for railway and motor-vehicle brakes and clutches. Experience demonstrated that cotton and asbestos, specially woven and treated with chemical solutions, could outlast metal in wear. Their first development was the application of "Ferodo" to stair treads; it was found that the material was of extraordinary durability under the most exacting factory-use conditions, as well as giving a great grip to the foot. These treads can now be supplied in twenty colours to fit any size step and may be easily fitted to wood, stone, iron, or marble. "Feroleum" nosings, specially suited to the more expensively fitted building, are a mixture of Ferodo materials and rubber. The very latest development is a "Feroleum" floor as laid on Stand 55, Row D. This also is a composition of Ferodo with a rubber mixture, and is supplied, both with and without lead backing, in lengths of any colour like linoleum. Of the four thicknesses made—viz.  $\frac{1}{8}$  inch,  $\frac{1}{4}$  inch,  $\frac{3}{8}$  inch, and  $\frac{1}{2}$  inch; the  $\frac{1}{2}$  inch is recommended for general purposes. A Feroleum floor does not need to be fixed.

*The Galvanising Equipment Co., Ltd.* (29A Portpool Lane, Gray's Inn Road, E.C.) exhibit on Stand 36, Row C, examples of rustproofing by the "Galeco" process all kinds of builders' small hardware. The claim is that "Galeco" does not give a plain zinc deposit, but covers the metal with an alloy which forms a far greater resistance to corrosion and forms an absolutely contiguous coating.

*Messrs. Gawthorp & Sons* (16 Long Acre, W.C. 2) do not show at Stand 29A, Row C, a very large collection of their work as artificers in brass, iron, wood, marble, &c., but every piece almost is of interest as being the product of a craftsman. This particularly applies to the hand-wrought iron. The firm is amalgamated with J. Wippell & Co., Ltd., of Exeter, who here contribute some excellent carved woodwork. Memorial tablets in bronze and brass have been for many months a busy 'line' for Messrs. Gawthorp, who, we may add in conclusion, are art-metal workers to King George, as they previously were to King Edward VII. and Queen Victoria.

*Y. Goldberg & Sons, Limited* (7 Kingsland Road, Shoreditch, E.), are plywood manufacturers, importers of timber, plywood, and veneers. Their stand, No. 171, Row J, makes a notable and most comprehensive display of plywood ranging from  $\frac{1}{30}$  inch to  $\frac{1}{4}$  inch in thickness. It includes joinery partitions, also doors and cupboard sections, showing plywood panels. A large assortment of different sizes and boards are on view. At the present time there is an exceptional demand for plywood. Messrs. Goldberg are in a position to meet all requirements for any kind of wood, whether it be oak, mahogany, plain maple, satin walnut, ash, or any other timber.

*The Granwood Flooring Co.* (Alfreton and 158-160 City Road, E.C.), we understand, only recently opened London offices. But they come with a definite record of provincial success. In Derbyshire, for instance, they have laid during the past six years a considerable number of "Granwood" block floors in county schools, under

the direction of Mr. G. H. Widdows, F.R.I.B.A. Stand 22, Row B, in the gallery, has all the appearance of being laid with handsome oak parquet, but the cost is stated to work out at half of that material. These non-magnesite blocks are made in pressed-brick machines to the dimensions of 6 in. by 2 in. by  $\frac{3}{8}$  in., and are laid in cement like a tile and grouted. The floors can be used within forty-eight hours of laying. The colours are either mahogany or oak, and variety is obtainable by the introduction of coloured borders. "Granwood" floors may be wax polished with excellent effect. Special corner blocks are made for hospitals, &c. At the back of the stand there is a series of dado panels carried out in the material, which are a thorough success. As we have already indicated, "Granwood" blocks have long left the experimental stage, and are now a thoroughly tried accessory to a successful building.

*Hadfields (Merton), Ltd.* (63 Regent Street, W.), attracted much attention at the previous Building Exhibition by their Chinese pavilion, on which the rich effects produced by "Heolin" colours and varnishes challenged comparison with Oriental lacquer. This year their stand, No. 86, Row E, is the same admirable piece of work, though, as a museum piece it suffers from the absence of the Chinese god which served as such an arresting central feature. The claim for "Heolin" enamel is that it does not run or ruck under the brush, but flows to a perfect and veneer-like surface. "Heolin" paints now include a process, demonstrated on the stand, by which an excellent gloss paint finish is obtained in two coats on bare wood or other new or old surface. The firm's works at Merton have recently been enlarged by a big building for making, maturing, and storing under ideal conditions.

*G. A. Harvey & Co. (London), Ltd.*, (5 Laurence Pountney Hill, E.C.), tank makers, galvanisers and sheet-metal workers, were established in 1874. The business now comprises very extensive works at Woolwich Road, Charlton, where some twelve different departments are working under separate management and control. The goods on Stand 16, Row B, are a selection of their products. In perforated metals alone they list more than 2,500 patterns from a needle-point to perforations 8-inch diameter. Something of a speciality are their stamped steel rainwater goods, both medium and heavy. Other exhibits comprise steel shelving and lockers, chimney-cowls, ventilators, radiator covers, weather-vanes, woven wire, tanks, cylinders, &c.

*Hayter, Ltd.* (St. Dunstan's Works, Hanwell), show on Stand 58, D, their various casement window fittings and stair rods, as well as a patent shackle, all of which incorporate their well-known Cam-lever. Other exhibits include pressings and stampings.

*Heffer, Scott & Co., Ltd.* (21 and 56 Berners Street, W.), are one of the few firms displaying wall-papers. Stand 142, Row H, has been divided into three bays, whose walls are covered with as many different patterns; while pattern-books indicate the wide range that may be ordered. The stand also shows the merits of "Keystona," the original flatted oil-paint.

*The Hemel Hempstead Patent Brick Co., Ltd.* (Hemel Hempstead and 326 Gray's Inn Road, W.C. 1), make their hollow partition terra-cotta blocks in thicknesses from  $1\frac{1}{2}$  in. to 6 in., either keyed for plastering or smooth both faces. They are guaranteed fire-resisting to 2,786° F., the melting point of steel. In tests a 3-in. partition wall sustained a load of 35½ tons, or 660 lb. per foot super, and a 2½-in. "Hempstead" hollow partition 640 lb. per foot super distributed load. The material will take nails and screws, and can be sawn or tooled as required. It has been supplied for a large number of housing schemes. The stand is No. 152A, Row H.

*Jones & Attwood, Ltd.* (Stourbridge), can draw upon an experience of over half a century of boiler-making. The passing of the years has in no way exhausted their fertility of invention. At Stand 12, Row B, they show the "Domestikatum" independent boiler, which not only fulfils its primary purpose of providing abundant hot water, but also can be used for any light cooking which



does not require an oven. It is being turned out on mass-production lines, and at the lowest possible price. Another speciality, but one of which many thousands are in use, is the "Cultivatum" boiler, for heating green-houses, garages, &c., without the construction of a stoke-hole. Their "Batheater" apparatus was introduced in 1912, and is still in brisk demand. It consists of a boiler and storage cylinder above bolted together. The firm have a choice of boilers for use when the hot storage tank or cylinder is separate from the heating agent.

*The Liner Concrete Machinery Co.* (Newcastle-on-Tyne) are demonstrating at Stand 21, Row B, with two types of their L.C. patent concrete head, sill, and lintel maker. Type A can turn out all descriptions of building stone up to 6 ft. long and Type B up to 5 ft. long. In the first a patent elevator bogie is run under the moulding-box, receives the load, and carries it to the maturing ground. Type B is about half the price and works without the elevator. The firm states that no other firm can sell or use elevators to work in conjunction with any other type of concrete machine without infringing their patent rights.

*The London Ply-wood Manufacturing Co., Ltd.* (384 Old Street, E.C.), has set up on Stand 162A, Row H, an interesting curved double door, displaying plywood veneers in a variety of twelve woods. The speciality of this firm is panels for doors, dressers, &c., cut to size from stock. Some thousands of these panels are being cut every week to customers' own sizes for housing schemes. Another speciality is joinery timbers like Oregon pine and silver spruce. The firm are both manufacturers and direct importers of plywood: they hold stocks of five million feet of aeronautical plywood.

*McDowall, Steven & Co., Ltd.* (2 Upper Thames Street, E.C.), have supplied their "Lauristine" combination stove and boiler for garden-city cottages at Letchworth, Ealing, and Harbourne with much success. The "Lauristine" has its oven, 15½ in. wide by 16 in. deep, and its fire, 16 in. wide, side by side. Another speciality on Stand 15, Row B, for housing schemes is their No. 26 range. There is a pleasing Old English type of fireplace suite in hand-made delicate red bricks, which would be suitable for a different class of residence. This latter remark applies equally to the electric heating stoves, of which some new designs are being shown. The firm's "Lion" range is a handsome production incorporating the latest improvements. There are exhibited various other cooking and heating specialities.

*The Martin-Harvey Engineering Company* (116 Victoria Street, Westminster, S.W.) are prepared at any time to design and construct a single machine to mould any type of block. Indeed, their speciality is designing special machines for special forms of blocks. Three of the "Marvey" types on Stand 37, Row B, follow more or less the usual lines. But type G, which is so recent that it is represented by a model only, presents some novel features. Four moulds are employed, and they are arranged at the extremities of four arms revolving round a fixed axle which is turned by the action of a geared capstan. Pressure (which can be regulated according to the material) is applied to the back of the mould by means of a cam mounted on the axle. The mould is adjustable to give solid blocks of any thickness up to 6 inches. The standard size is 18 inches by 9 inches. The advantages claimed included the elimination of the human element, so far as consolidating the block is concerned, and the speed of output.

*E. N. Mason & Sons, Limited* (Colchester and Arc-light House, 27 Ivy Lane, Paternoster Row, E.C.), include on Stand 19 (Gallery), Row B, a wide range and comprehensive outfit of drawing and general office supplies and furniture, general printing, photoprinting, &c. One very useful novelty is a fountain drawing pen, with telescope-compass, christened the "Minerva." It can be put to a variety of uses; for instance, a set of compasses can easily be attached to the holder, or the pen itself can be replaced by a metal nozzle for stenciling; a movable segment permits of variation of thickness

in the strokes. Another addition to the 2,000 lines sold by this firm is their "Arc-light" true-to-scale composition, by the use of which, we understand, it is possible from good tracings to take without difficulty more than fifty copies from one impression. This composition also keeps fresh over a remarkable length of time. On the stand there is a full range of surveying instruments including a new type of telescope pole with roller-shutter scale. The firm, which has been in business for nearly twenty years, hope to be in complete possession of extended works at Colchester in six months.

At Bay 12, in the Gallery, demonstrations are given of Mitchell's "Hot-Wash" geyser, which is being manufactured by the patentees, *Messrs. W. T. Mitchell & Company* (Campbell Works, Belfast Road, Stoke Newington, N.). Its construction comprises some important departures from the usual patterns. Internally it consists of two cylinders with a series of conical baffles. The water rises from the bottom between the cylinders and flows down the baffles; the heat from the thirty-seven Bray's burners comes up the centre and forces its way between these baffles with the result that the heat comes both above and under the water. The abnormal heating surface enables some surprising results to be obtained. It is calculated that 20 gallons of water raised to 101° F. can be obtained in 11½ minutes at a cost of a fraction over a penny with gas at 5s. 6d. per 1,000 cubic feet. In a test on the stand, water running at 2 quarts a minute became too hot in 20 seconds for the hand. There is always a big reserve of water in the geyser, and the gas consumption is 5 cubic feet in 2 minutes 45 seconds. "Hot-Wash" geysers are made throughout of 24-wire gauge copper with the whole of the interior heavily tinned.

*Anselm Odling & Sons, Limited* (Crown Wharf, 132 New North Road, N. 1), have brought together on Stand 101, Row F, a remarkable collection of exhibits, particularly of marble work for buildings, statuary, and garden work. The firm are manufacturers and contractors, marble and granite merchants, quarry owners, and decorative marble contractors.

*C. A. Peters, Limited* (Derby and London), have treated all the woodwork of their pavilion, No. 65, Row L, with "Peterlineum." This preservative, which was formerly called Carbolineum, gives a pleasant nut-brown colour. A photograph on the stand shows the 215 feet flagstaff, presented to Kew Gardens by the Government of British Columbia, being treated with this long-established material. Other products of the firm are "Antioxide," a varnish for applying over "Peterlineum"; and Imperial black varnish for preventing rust on exterior ironwork.

*P. & A. Picard* (for whom *Robert Adams* are the sole agents in England) have been established for no less than two centuries. Their display on Stand 178, J, is a really delightful one. They are represented by high-class bronze fittings (chased and gilt) which would give an air of distinction to any room. It is French design and craftsmanship at its best—and that is high praise indeed. The present moment offers a unique opportunity for securing such fine work from France at a moderate cost, for the rate of exchange reduces the price by half.

*Mr. F. B. Pitcher* (57 Ashburton Grove, N. 7) is the proprietor of the Mangapp Brick and Tile Works at Burnham-on-Crouch. Their speciality is hand-made facing bricks, which can be burnt to any shade of colour to suit architects' requirements. A modest display may be seen at Stand 25, Row B.

*The "Quicksey" Cabinet Manufacturing Company* (Cromwell House, Fulwood Place, High Holborn, W.C.) triumphantly prove how ingenuity can be brought to bear upon kitchen equipment in order to save labour. An examination of the "Quicksey" kitchen cabinet on Stand 170A, Row J, has hinted to us of a possible solution of the servant problem. Those houses which are fortunate enough to possess one ought to experience little trouble in retaining their cook. We even suggest that if a mistress who is cookless should obtain a "Quicksey"



**CONCRETE BLOCKS "KING" PLASTER SLABS**

**WALLS PARTITIONS ROOFS**

**FIBROUS PLASTER CEILING SLABS**

*Ferro-Concrete and Glass Constructions*

**"FERRO GLASS" PAVEMENT LIGHTS**

**"KING" CONCRETE GLAZING BARS**

**A. KING & CO.**

181, QUEEN VICTORIA ST., LONDON, E.C., and  
BRITANNIA BUILDINGS, LEEDS.  
Tel: City 2213 and Cent. 773, and Leeds 22712.

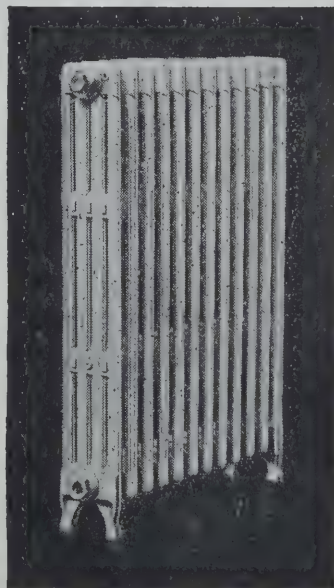
**Prompt Delivery & Reduced Prices.**

Ideal Radiators and Ideal Boilers in practically all current patterns can now be supplied promptly from stock, including all heights of Ideal Classic Four-Column Radiators.

Considerable reductions have been made in prices of nearly all goods and especially in the lower heights of Ideal Radiators which are most in demand for residential work.

**IDEAL & IDEAL**  
RADIATORS BOILERS

Ideal Classic Radiators are distinguished by their graceful fluted columns which harmonise with the most artistic surroundings; they occupy thirty per cent. less floor space than other patterns, require only half the water contents and are highly efficient.



**NATIONAL RADIATOR COMPANY**  
LIMITED.

Offices, Showrooms & Works: HULL, Yorks.  
Telephone: Central 4220. Telegrams: "Radiators, Hull."

London Showrooms: 439 & 441 Oxford Street, W.1.  
Telephone: Mayfair 2153. Telegrams: "Liableness, London."

Agents in Great Britain carrying stocks of "Ideal" Radiators and "Ideal" Boilers:

Baxendale & Co. Ltd., Miller Street Works, Manchester.

William Macleod & Co., 60-64 Robertson Street, Glasgow



her work will be so facilitated she will not feel the need for such help. The cabinet is full of surprises, but is without complication, and would be invaluable in a small kitchen or one which is also used as a living-room. When closed it is a handsome piece of furniture; when open it is a honeycomb of cupboards, drawers, and canisters. The items comprised in the dry goods section of the larder have each their own receptacle, automatically sealed, and come easily to the hand.

*The Salter Paint Co.* (150 Southampton Row, W.C.) sell a number of products for decorators under the trade brand of "Bow Bells"—so christened because their works are in Bow—including enamels and varnish and prepared paints, distempers, white lead, American turps, oils, &c. But the visitor to Stand 31 C will find that particular stress is being laid on their flat-oil paint. For this many claims are made, one of the principal being that no matter on what surface it is applied, if wet or greasy, it will dry hard and adhere firmly, and so forms a splendid undercoat for wallpaper, paint, or distemper. On plaster, brick, and cement a coat of flat-oil priming should be used. Both the flat-oil paint and the primings are sold in any colour.

*The Scruby-Harkness Building Mould Co.* (Harlow, Essex) have, on their stand in the annexe, No. 77A, Row E, one of the novelties of the exhibition. The machine is for building walls *in situ*. The mould is of aluminium. Its sides are fixed on swivels from tube-steel bars connected to two angles which form legs. These legs or arches can be expanded from 4½ in. to 9 in. The release of the sides gives an upward and outward movement, thus avoiding any suction or disturbance of the block's surface. The end plates, being fluted, form a key for the adjoining block. As soon as the mould is filled it is drawn back along the wall and falls into position again ready for refilling with semi-dry concrete. Corner blocks can be made on the ground and placed in position. In three hours the blocks become hard enough to carry an upper course. It is claimed that the 4-ft. machine will make and lay the equivalent to fifty bricks in ten minutes.

*William Shepherd & Sons, Ltd.* (Milkstone, Rochdale), exhibit on Stand 13, Row B, in the Gallery, samples of their various products, such as asphaltic slag and limestone, broken slag and fine slag. The firm can claim fifty years of road-making experience. One of their specialities is a patent tram-rail paving block, which is inserted between the flanges of the rail and, by completely filling the void, gives an unyielding support to the adjacent paving. These blocks, which are of blue-ware, have been adopted by twenty-eight Corporations and tramway companies.

*John Slater, Ltd.* (branch of Amalgamated Industries, Ltd., 9 Union Court, Broad Street, E.C.) have, on Stand 7, Row B, a Rackham 5-b.h.p. paraffin (kerosene) engine which has been designed so as to be run without any skilled attention. It is supplied for portable or stationary contractor's power plant for driving crushers, mixers, hoists, woodworking machinery. As the engine is pre-eminently a mass-production job, and all parts are interchangeable, spares can be obtained at the shortest notice and practically at self-cost.

*Smith's Builders' Accessories, Ltd.* (Wyvil Road, Vauxhall, S.W.) are giving, at Stand 8, Row B, demonstrations with their admirable patent ladder cripple, of which many hundreds are in use. Perhaps the most convincing way of suggesting its merits will be by quoting the following letter from Messrs. Higgs & Hill, Ltd.: "The patent cripples supplied by you are in every way satisfactory. They are quite the most handy and convenient scaffold requisite with which we have come in contact during many years' connection with the trade. We shall be pleased to place further orders when occasion arises."

Stand 138, Row G, is a building erected by *G. R. Speaker & Co.* (Eternit House, Stevenage Road, S.W.) to show their patent "Trellit" principle in various stages. "Trellit" buildings consist of a light steel collapsible framing with walls of double "Eternit"

sheets and the ceiling frame closed in with roof boarding and "Eternit" tiles. A recent improvement is a patent composite truss which greatly economises space in packing and weight in handling. "Eternit" corrugated sheets can be supplied in the standard size of 8 feet long by 3 feet 2½ inches wide, the corrugations having a pitch of 5 inches.

The "Opalograph" duplicator is arousing much interest on Stand 79, Row E, where it is being shown by *Messrs. Staines Kitchen Equipment Co., Ltd.*, who are acting as agents. The machine possesses many obvious merits. It is compact, simple, particularly clean, quick in giving perfect copies, and is moderate in cost. It has proved as successful in reproducing an architectural illustration from our own editorial pages as it was in reproducing in facsimile a sentence from our own editorial handwriting.

*The Standard Plating and "Kupron" Works, Ltd.* (62-66 Rosebery Avenue, Clerkenwell, E.C.) are to be congratulated on the high-class character of their Kupronart metal work on Stand 95, Row E. "Kupronising"—i.e. the electro-depositing of pure copper in liquid state—is now possible of application to practically any material. On the stand it may be seen, for instance, as an impregnation of some splendid plaster caps, iron collapsible gates, memorial tablets, woodwork, and metal casements. The finish may be in any desired tone. The detail is so sharp that it is easy to understand why the firm were selected to supply reproductions of silver work in the British Museum to the Italian Government, as well as to reproduce fossils for our own Natural History Museum. Kupron art metal work, ranging from shop fronts to name-plates, from flowers to candelabra, has been introduced into a large number of important buildings both in London and the provinces. Another activity of this firm, which is an all-British one employing all British labour, is electro-plating in gold, silver, copper, brass, nickel and tin.

*Messrs. Stothert & Pitt, Ltd.* (11 Victoria Street, S.W.), exhibit on Stand 39, Row C, two of their "Victoria" concrete mixers, one with an unmixed batch capacity of 42 cubic feet, and the other of 8½ cubic feet. A smaller machine is the standard Victoria H.M. Mixer which can be moved about by one or two men; it is intended to be driven by a 2½-h.p. oil-engine, but it can be converted into a hand mixer. Another exhibit is their "Dri-crete" block-making machine, in which the solid blocks of wet-mix concrete are faced with a thin layer of "Pudlo" waterproofer and cement. A somewhat similar type of machine for making partition slabs 18 inches by 12 inches by 2 inches, 2½ inches and 3 inches in thickness, is shown.

*Sturtevant Engineering Co., Ltd.* (147 Queen Victoria Street, E.C.), are probably best known to our readers for their industrial ventilating plants and fans. On Stand 89, Row E, they have concentrated on their turbine vacuum cleaners, both stationary and portable types. In a Sturtevant cleaner, a series of fans or turbine wheels mounted on a common shaft draws the air from wheel to wheel, until the suction reaches the required degree. A considerable number of installations can be seen in London and the provinces working under all conditions and in almost every type and size of building.

*John Tann, Limited* (117 Newgate Street, E.C.) claim to be the oldest firm of safe manufacturers in the world. Their stand, No. 41, Row C, appropriately comprises among its exhibits a mediæval treasure chest, next to is the Tann safe which was sent to the Great Exhibition of 1851, and which included the fire-resisting composition invented by John Tann in 1843, and finally their latest crane hinged "Invulnerable" safe constructed to resist fire, burglars, the drill, high explosive, the oxy-acetylene blow-pipe, and every known risk and form of attack. This striking object-lesson in the evolution of security might have been appropriately added to by the inclusion of a safe made by the firm at the time when it was established in 1795. John Tann set up another link in this chain of evolution in 1865 when he originated the compound



# REDPATH BROWN & CO., LTD. CONSTRUCTIONAL ENGINEERS



## WORKS AND STOCKYARDS

LONDON.  
Riverside Works.  
East Greenwich, SE.

MANCHESTER.  
Trafford Park.

EDINBURGH.  
St. Andrew Steel Works.

GLASGOW.  
Pinkston.  
Office 19, Waterloo St.

BIRMINGHAM  
Office 47, Temple Row.

NEWCASTLE ON TYNE.  
Milburn House

London City Office.  
3, LAURENCE POUNTNEY HILL.  
E.C.4.



drill-proof steel plate which consists of alternate layers of hard high carbon steel and tough mild steel rolled and welded together at a great heat. The stand shows various types of "Anchor Reliance" doors and safes, party wall doors, strong room shelving, steel plate, closet doors, steel chests, cash and deed boxes and locks for all purposes.

*The Telephone Manufacturing Co. (1920), Ltd.* (Hollingsworth Works, Martell Road, S.E. 21) have up in the Gallery, at Bay 25, a complete series of automatic inter-communicating telephones for works, office, and special requirements. A few of the features of this new system of private installation on a big scale are: the "Round Call," which enables several officials to hold a simultaneous conference; a central selective secret conversational control, and the automatic visual indication of engaged lines. The instruments shown on the stand range from single to fifty-line capacity of both desk and wall types. The most recent development is a "Laryngaphone," which is for such conditions as preclude the use of a mouthpiece—the sound of the spoken word being "tapped" at the larynx before it leaves the mouth. This instrument is for purposes like aviation, deep-water diving, mine rescue-work, and power stations. The "Laryngaphone," can be fitted to existing telephones of any make or type.

*"Thermos" Flooring Co., Ltd.* (Glasgow and 171 Queen Victoria Street, E.C.), are contractors to the Admiralty, Office of Works, and H.M. Prison Commissioners. Their magnesite composition floor has also been approved by the Board of Trade for use on ship-decks. It can be laid on concrete, stone, wood, or any solid foundation, and the surface either trowel finished or highly polished. On Stand 42, Row C, it may be seen in different colours and borders. "Thermos" flooring has been laid in subsidised housing schemes, such as Chelmsford and Havant.

*The Tourba Construction Co., Ltd.* (6 Holborn Viaduct, E.C.), exhibit on Stand 168, Row H, the "Frewen" continuous air cavity concrete and hollow brick system, which fulfills all the requirements of the Ministry of Health. Each "Frewen" brick of standard size—16 in. by 9 in. by 6 in.—has a surface area of one square foot. Consequently, nine of these bricks will build one square yard super of house wallage, and whereas in weight they equal thirty ordinary solid bricks, they cover the same area as 100 ordinary bricks. It is claimed that the saving over solid brickwork in cost of brick material is 1s. 6d. per square yard, or 20 per cent. There is a further considerable saving in transport. As all the cavity bricks interlock and dovetail into each other both horizontally and vertically they are highly resistant to all pressures, thrusts, and strains. Special bricks are moulded for both the string and base courses; cill and jamb bricks are used for the openings, and these are shaped angle bricks. The "Frewen" system is a new one, but it has aroused marked attention. Two of the not least interested visitors were their Majesties the King and Queen when they came to Olympia on Tuesday last.

The system of the *Triangular Concrete Construction Co.* (East Molesey, Surrey) is a "replica multiple" one, in which the isosceles triangle is adopted for the shape of the units, and each block of their six sizes is one-half the dimensions of the block next above it in size. This allows of infinite variations; any break or corner or any special feature can be formed without special blocks or cutting. The triangular blocks form a hollow wall, those facing inwards being of porous and those facing outwards of impervious material. The bond is right through the wall, and at the same time is diagonal. Three blocks in any course are tied together by one block in the course above. Above the damp course a row of ventilating triangular blocks are laid, which connect with the air cavities in the wall. To convince visitors of the strength of the concrete blocks, a testing machine is on Stand 29B, Row B. In one test a pier of six bricks laid in two courses crushed at 16 tons, while two triangular blocks with the same quantity of material crushed at a pressure of 53 tons and 60 tons

respectively. The system (which is the invention of Major W. G. Smith, of Imber Court Works, Thame, Oxfordshire) has been on the market for less than two years and has been already adopted for some large contracts including a considerable amount of work for the Metropolitan Police authorities and more than one housing scheme.

*R. G. Whitaker, Ltd.* (Kingston-on-Thames), show on Stand 118, Row F, a series of "R. G. W." machines for the manufacture of concrete slabs and blocks of every description, from a brick-size block to an 8-foot lintel and post. In the fifteen years the firm have been making concrete machinery, particular attention has been paid to designing machines for special work. At the back of their stand may be seen a collection of solid and cored blocks of all sizes and finish. The latest addition to the "R.G.W." series is known as the "U" type, which will make any slab, cored or hollow, from 18 inches by 9 inches by 2 inches up to 9 inches. It will produce a quoin, tee, or return-end block. It will give a water-proof, rock, or any other face desired. In addition to partition slabs and building blocks, it will give six brick-sized blocks, made on edge, or four brick-sized frogged blocks, or three dovetail floor blocks 9 inches long.

## Reading Society of Architects.

THE Quarterly Meeting of the Reading Society of Architects was held last week at the Chamber of Commerce Meeting Room when forty-six architects were present, including the President, Mr. C. Steward Smith, F.R.I.B.A., in the chair; and Messrs. A. Cooper, A.R.I.B.A. (Slough), A. S. Cox, M.S.A., T. T. Cumming, A.R.I.B.A., F. H. Floyd, F.R.I.B.A. (Newbury), W. J. Freeman, A.R.I.B.A., G. T. Gardner (Oxford), J. H. Goodman, J. R. Greenaway, F.S.I., N. W. Harrison, F.R.I.B.A. (Oxford), Roland Howell, F.R.I.B.A., P. A. Hopkins, M.S.A. (Gerrards Cross), Harry Hutt, A.R.I.B.A., C. S. Kimpton, A.R.I.B.A., (Sunningdale) H. M. Lewis (Wokingham) E. P. Morgan, W. Galt Millar, F.S.I., W. R. Morris, J. S. Paton, M.S.A., H. Whiteman, Rising, F.R.I.B.A., Thos. Rayson, A.R.I.B.A., (Oxford) R. A. Rix, (Burnham) Basil Sutton, A.R.I.B.A., (Lambourn) H. W. Smith, M.S.A., (Oxford) G. Berkeley Wills, A.R.I.B.A., (Marlow) F. G. Sainsbury, M.S.A., G. H. Williams, A.R.I.B.A., (Windsor) F. Wood (Maidenhead) H. E. Watkinson, F.S.I., and C. H. Willcocks, F.R.I.B.A., (Hon. Sec.).

After several new members had been elected, Mr. L. MacAlister, the Secretary of the Royal Institute of British Architects, gave a very interesting and comprehensive address on the proposed Berks, Bucks, and Oxon Architectural Association, in which he pointed out the need for such an Association and the value it would be to the profession.

After considerable discussion in which the educational and other advantages of the Association were considered it was unanimously resolved to form such an Association and a Committee was appointed to arrange the necessary details consisting of Messrs. C. Steward Smith, W. F. Howell, H. W. Rising, C. B. Willcocks, Thos. Rayson, G. T. Gardner, N. W. Harrison, H. W. Smith, Basil Sutton, P. A. Hopkins, G. H. Williams, F. H. Floyd, Berkeley Wills, A. Cooper, R. A. Rix, C. S. Kimpton with Mr. H. Hutt as Hon. Sec.

In conjunction with the three-counties Association, it is proposed to form several affiliated local architectural societies similar to those already formed at Reading and Oxford, so that all architects in the three counties may be in close touch with the central body.

At the annual meeting of the Incorporated Institute of British Decorators, held at the Painters' Hall, Little Tring Lane, E.C., Mr. W. Stewart Greene, managing director of the firm of Greene & Abbot, Ltd., of 473 Oxford Street W., was unanimously elected president for the ensuing year.



# THREE IMPORTANT BUILDING MATERIALS

ARE BEING EXHIBITED AT THE  
BUILDING TRADES EXHIBITION—APRIL 12 to 26,  
STAND 92.

FOR REINFORCED  
CONCRETE FLOORS,  
ROOFS, BRIDGES,  
CULVERTS, STRONG  
ROOMS, FACTORY  
BUILDINGS, Etc.

FOR REINFORCED  
CONCRETE WALLS.

## "SELF-SETERING"

(EXPANDED METAL).

FOR REINFORCED  
CONCRETE FLOORS,  
ROOFS, BRIDGES,  
CULVERTS, STRONG  
ROOMS, FACTORY  
BUILDINGS, Etc.

FOR REINFORCED  
CONCRETE WALLS.

## "TRUSSIT"

(THE BACKBONE OF CONCRETE WALLS).

FOR PLASTER  
PARTITIONS AND  
CEILINGS.

## "HERRINGBONE"

(A RIGID METAL LATH).

FOR PLASTER  
PARTITIONS AND  
CEILINGS.

FIRE-PROOF.

VERMIN-PROOF.

TIME-DEFYING.

SELF - SETTERING EXPANDED METAL WORKS LIMITED,  
110 CANNON STREET, E.C. 4.

## "BASECO" PATENT BOILER.

The finest Boiler made for Domestic Hot Water  
Supply and for Hot Water Heating with Radiators.

ABSOLUTELY UNEQUALLED FOR EFFICIENCY  
AND ECONOMY.

BURNS COAL, COKE, ANTHRACITE AND HOUSEHOLD REFUSE.

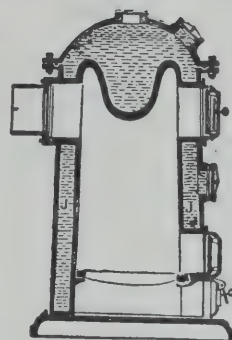
British Invention and Manufacture.

Through all Heating and Hot Water Engineers and Builders' Merchants.

Patentees: O. BRUSTER & DE LAUNOIT, 4 Lloyd's Avenue,

Succrs. to H. C. ROBOTTON & CO.

LONDON, E.C.3.



Section  
showing Water Pocket.



THE "RELIANCE"  
Patent Automatic Panic Bolt.

## WILLIAM NEWMAN & SONS, LTD.

Makers of Door Springs of all kinds.  
"Helical" Spring Hinges.

The "Invincible," "Climax," "Smith's"  
and other Floor Springs.

The "Briton" Door Check and Spring.  
Panic Bolts, Fanlight Openers, &c., &c.

Hospital Street, BIRMINGHAM

THE "BRITON"  
Door Check  
and Spring



For Right and Left Hand  
Doors, without change.  
All British Made.



## Airship Sheds and their Erection.\*

By LUKE HAMILTON LARMUTH, Assoc.M.Inst.C.E.

AT the commencement of the Great War in August 1914 Great Britain had only six sheds actually built or building for the construction and housing of non-rigid and rigid airships. At an early date the German submarine menace emphasised the need for rapid expansion in the production of airships for convoying merchant, troop and passenger ships, and also for observational duties in conjunction with the Navy. This necessitated the construction of stations or bases equipped with housing for personnel, roads, drainage, water, electric light and power supplies, plant for manufacturing hydrogen gas and the provision of sheds for housing the airships. Some sixty-one airship sheds were manufactured during the period 1914-1919; they vary in span from 45 feet to 180 feet, in height (clear headroom) from 50 feet to 130 feet, and in length from 150 to 840 feet. The total floor area covered by these sheds is approximately 78 acres. Full details were given in the paper of the allowable stresses on the different materials used in the construction of the sheds, and the conditions under which they were designed.

*Sheds for Non-Rigid Airships.*—The sheds for non-rigid airships are of two types, permanent and semi-permanent; the former are mostly of steel construction throughout, and the latter of timber or timber and steel, covered with canvas or corrugated steel sheeting. Details are given of two semi-portable sheds for non-rigid ships, one in steel and the other in timber construction. These sheds are 50 feet span, 56 feet clear height, and 175 feet long; they are assembled at practically ground level, and only winches and small tackle are required for their erection. It is estimated that the latter type (timber) can be completely erected in ten hours by forty men. Both these sheds are suitable for erection on sites having a gradient of 1 in 20. The largest of the sheds for non-rigid ships, i.e., of spans about 110 feet, length 350 feet, and height 80 feet, are of the three-pin arch design, constructed in steel, with the lower pin joints either at ground level or springing from the tops of braced trestles. These sheds were erected with travelling steam derrick cranes running on tracks at ground level, or by portable steel-lattice masts with winches and blocks and tackle.

*Sheds for Rigid Airships.*—The sheds for rigid airships are constructed of steel, and were designed with the intention that they would remain as permanent structures after the war. Eleven steel-framed sheds were designed, constructed, and erected; eight of these sheds are of the three-pin arch type on trestles, one is a two-pin arch springing from ground level, and the other two braced roof girders on high trestles. The latest design is a shed of two equal spans, each 150 feet wide, 130 feet clear height, and 750 feet long; it covers an area of  $8\frac{1}{2}$  acres, and is probably the largest building in the world.

The rigid sheds have longitudinal gangways in the roof, with cross gangways at suitable intervals; access stairways are provided, generally three on each side of the shed. Gangways are also provided externally at the eaves. In each shed not less than five runway beams for 1-ton claw travellers are provided; these are located one under each eaves externally, and the remainder inside the shed just below the lower boom of the main roof frames or tie beams. An observation cabin is provided for each shed; it is situated at one end and above the ridge. The trestles which carry the roof are ceiled over at a suitable height, and walled in for use as offices, workshops, &c. In the centre of each shed a hydrogen trench, with movable covers, is constructed to take the gas mains, valves and draw-off points.

*Airship Shed Doors.*—With one or two exceptions the sheds are provided with doors at each end; a few of these doors are of the ordinary type of vertical sliding

door, rolling on rails at ground level and steadied at the top between guides on an overhead girder. Most of the doors are, however, of the A-frame, ballasted, self-supporting type, running on a broad-gauge track on concrete foundations. The latest type of door, of which full particulars are given, is semi-ballasted, i.e., it is only stable in the first instance for one-half of the maximum wind pressure; when this is exceeded suspending links with rollers transfer the uplifting force to the concrete foundations of the door-track. The door-leaves to sheds for rigid airships vary in weight from 200 tons to 320 tons, and considerable difficulty was experienced in regard to the gears and running wheels. The doors are operated by winches or capstans and spare gearing; in some cases they are hauled along by wire ropes or chains.

*Erection of large Sheds.*—Generally speaking, all the large sheds were erected by cranes mounted on a travelling staging and moving along tracks laid down the centre of the shed. In a few cases the door framework was erected and used as a travelling staging before being finally placed on the permanent tracks. In the case of the two-pin arch design, the centre portion of the roof was assembled, *in situ*, piece by piece on a platform raised to the required height above the ground; the side or vertical portions were assembled near the ground with the lower pin joints coupled up. When the parts of two main frames had been assembled in this manner the vertical portions were rotated from their recumbent position to the vertical and connected up, at staging level to the centre portion.

*Expansion Joints.*—The author pointed out that no provision has been made for expansion and contraction except in the case of the large twin shed previously referred to. He gave the results of some tests on two of the sheds which indicated a longitudinal expansion of  $\frac{1}{16}$  inch in 700 feet for a rise of one degree in the temperature of the air in the roof of the shed; in a transverse direction the increase is about  $\frac{1}{10}$  inch in a span of 180 feet. To provide for this expansion, the bolt-holes in all the members in two bays are slotted; these bays are arranged to divide the length of the shed into approximately three equal parts.

*Mooring Mast.*—A mooring mast for airships was described and illustrated. In principle, the gear consists of a tall steel mast or tower, of such a height that when the ship is attached by the nose to the mast, she rides on an even keel at a height of upwards of 100 feet above the ground. The top portion of the masthead, to which the vessel is attached, is designed to rotate, so that the ship, when moored, may always lie directly head to wind.

*Wind Pressure.*—With one exception, no account has been taken in the calculations of negative pressure on the leeward side. The author suggested that investigations be made of actual wind pressures on one of the largest of the existing sheds, as the tendency is to demand much larger sheds in the future.

The whole of the airship sheds and subsidiary works described in the paper were carried out under the Civil Engineer-in-Chief (formerly Director of Works) to the Admiralty.

NINETEEN of the owners of villas in Swansfield Park Road have sent a protest to the Alnwick Urban Council against any further building of houses at that place, in view of their property being depreciated in value, consequent upon the particularly common type of houses in process of erection by the Council opposite their frontages in connection with the building scheme. After some discussion the Council decided that the protest be forwarded to the Ministry of Health for their observations thereon.

At a meeting of Weetslade District Council at Dudley the seal of the Council was affixed to the contract with Messrs. J. W. Braithwaite & Co. for the building of 100 houses at Dudley. The contract with Mr. J. McLaren, jun., for the construction of the necessary roads and sewers in connection with the Council's housing scheme at Dudley was also sealed. The clerk was instructed to apply to the Ministry of Health for permission to borrow from the Public Works Loan Commissioners £100,000 for the purpose of carrying out the housing scheme at Dudley.

\* Abstract of a paper read at the Ordinary meeting of the Institution of Civil Engineers on April 5.



THE  
**NORTHERN**  
 ASSURANCE COMPANY LIMITED  
 (ESTABLISHED 1836)

Assets  
 exceed  
 15,000,000

FIRE  
 LIFE  
 MARINE



Income  
 exceeds  
 £6,000,000

MOTOR  
 ACCIDENT  
 BURGLARY

London Head Office: 1 MOORGATE STREET, E.C. 2.

Agency Appointments granted to Architects, Estate Agents, Auctioneers, etc., in a position to influence Business.

STAND No. 189, Row J, BUILDING EXHIBITION.

OUR SPECIAL WESTERN PINE DOORS  
 CAN BE INSPECTED AT ABOVE AND  
 WE SUGGEST A VISIT WILL GIVE  
 COMPLETE SATISFACTION.

FOR STAINING.

FREE FROM KNOTS.

**WESTERN PINE DOORS**  
 RED CONE BRAND (REGD.)

**BRYCE, WHITE & CO.,**  
 28 WHARF ROAD, CITY ROAD,  
 LONDON, N.1.

Telephones: { NORTH 715.  
 CLERKENWELL 3738.

Telegrams: MYOSOTIS, HOX, LONDON.



## Forthcoming Events.

*Friday, April 22.*—Architects' Welcome Club.—Dinner in the Pillar Hall, Olympia. 7 P.M.

—Town Planning Institute.—Meeting at 92 Victoria Street, Westminster, S.W. Paper by Mr. George L. Pepler, F.S.I., on "Some Town Planning Problems." 6 P.M.

*Monday, April 25.*—Architectural Association.—Meeting at 34 Bedford Square. Paper by Sir Lawrence Weaver, K.B.E. (Director-General, Land and Supplies Department, Ministry of Agriculture), entitled "Rural Cottages: Common Sense and Architecture." 7 P.M.

*Tuesday, April 26.*—Illuminating Engineering Society.—Meeting at 18 John Street, Adelphi, W.C. Paper by Mr. W. J. Jones, entitled "Ship-lighting in relation to Comfort, Safety, and Efficiency." 8 P.M.

—Institution of Civil Engineers.—General Meeting to be followed by Annual General Meeting at Great George Street, Westminster, S.W. 5.15 P.M.

*Wednesday, April 27.*—The London Society.—Dinner at the Royal Adelaide Galleries, King William Street, Strand, W.C. Very Rev. Dr. Inge will speak on "London in 1971." 7.30 P.M.

*Thursday, April 28.*—Royal Institute of British Architects. Public Lecture at 9 Conduit Street, W., by Mr. A. Clutton Brock, entitled "Architecture as Everyone's Concern." 5 P.M.

—Concrete Institute.—Meeting at 296 Vauxhall Bridge Road, S.W. Paper by Professor F. C. Lea, D.Sc., M.Inst.C.E., entitled "The Elastic Modulus of Concrete." 7.30 P.M.

## Progress of Housing Schemes.

New housing schemes submitted to the Ministry during the week ended April 8 numbered fifteen, bringing the total number of schemes submitted to 11,483. The schemes approved now number 9,027 and comprise about 57,700 acres.

Twenty-one lay-out schemes were submitted and twenty-two approved during the week, bringing the total number of lay-outs submitted to 7,505 and number approved to 6,962.

House plans representing 596 houses were submitted and plans for 565 houses approved. The total number of houses represented in all plans now submitted is 295,349 and in the plans approved 276,538.

During the week tenders were submitted for 799 houses. Tenders for 484 were approved, bringing the total number of houses in tenders submitted to 192,777 and in tenders approved to 177,050. Contracts have been signed for 156,587 houses.

## German Constructional Steelwork.

STRUCTURAL engineers in Germany, according to the report from our Department of Overseas Trade continue to be well employed and are reported to have orders in hand for foreign account. The home demand is slack on account of the comparatively high prices and restricted to beams and girders for housing requirements. The coal strike in England resulted in orders being placed in Germany, and manufacturers were found willing to make fixed quotations and favourable deliveries.

The adjustment of prices by the Eisenwirtschaftsbund, which remained in force from November 1 to the end of February, gave German manufacturers good facilities for making firm quotations. The prices for girders and plates for the inland market are given in another part of this report.

Manufacturers find little difficulty in working up to British Standard specifications, but the less stringent specifications of the Prussian railways, which did much to help the industry before, work in their favour when accepted by foreign clients. The prejudice against basic material which was prominent in England but non-existent in Germany was not only injurious to the British manufacturer quoting in foreign markets, but of assistance to the German.

## General.

A PUBLIC inquiry was held at Staniforth last week by Mr. M. G. Weeks, M.I.C.E., into an application by the Thorne Rural Council for permission to borrow £40,850 for works of sewage and sewage disposal for the township of Staniforth, to meet the growing needs of the colliery village. At present the Council were erecting 299 houses, and the Hatfield Main Utility Society 408 houses. These, however, were only looked upon as an instalment of what would eventually be required for the whole of the district.

THE text has been issued of a Bill which has the object of giving all medical officers of health and sanitary inspectors security in their tenure of office similar to that enjoyed by Poor Law medical officers, metropolitan medical officers of health, and medical officers of health appointed by County Councils. In London the sanitary inspector is so called by law, but outside London the law names him "inspector of nuisances." It is proposed that the London name shall be generally used.

A SELECTION from the etched work of the late William Strang, R.A., whose sudden death occurred at Bournemouth on April 12, has been arranged in Room 152 of the Victoria and Albert Museum. One of Professor Legros' devoted pupils at the Slade School soon after that celebrated master was installed there forty-eight years ago, Strang retained even in his later work evidences of the inspiration he then received. His output was a very large one. The etching exhibited cannot cover the full range, but deal with the period of his activities from the early 'eighties until 1914. Further examples can also be seen in the Students' Room of the Department of Engraving, Illustration and Design.

THE Ministry of Health has issued a memorandum dealing with the financial side of the Housing Bill, 1921, now before Parliament. The only provision of the Bill which involves increased Exchequer expenditure is that which extends the period authorising the payment of grant to any person or body of persons, constructing approved houses. This provision does not affect the aggregate amount of the grant of £15,000,000 under the Additional Powers Act, 1919, of which it is estimated that a sum not exceeding £9,000,000 will be expended in consequence of the extension of time proposed to be given. As to the provisions of the Bill involving a charge on the rates, it is stated that an estimate as to this amount is impracticable.

## Trade Notes.

THOMAS FALDO & Co., LTD., asphalté manufacturers and contractors, Windsor House, Kingsway, W.C., inform us that Mr. R. B. Brierley has retired from the directorship of the Company, and that Mr. Percy J. D. Webster and Mr. J. S. Muir Simpson have been elected as directors.

THE En-tout-Cas Company, Syston, Leics., sole patentees and makers of the "En-tout-Cas" hard lawn tennis courts have been favoured with the official order for the ten hard courts for the new world's championship ground at Wimbledon Park, including the centre hard court, which, we understand, will be used for the world's hard court championship. So all of these hard courts will be the famous "En-tout-Cas" hard lawn tennis courts.

THE Associated Portland Cement Manufacturers, Ltd. will hold their twenty-second ordinary general meeting at the River Plate House, Finsbury Circus, E.C., on April 26. During the past year there was a good demand for Portland cement both at home and abroad, satisfactory prices being secured, particularly for export shipment. The trading profits of the company for the year show a substantial relative improvement as compared with the previous period of six months. The revenue derived from investments also shows a relative improvement, largely due to the increased return obtained from the company's works abroad. In view of the prevailing uncertain conditions, the directors have determined on a conservative policy, and they accordingly recommend a dividend of 10 per cent. on the issued ordinary share capital, the payment of which will leave £79,050 to be added to the balance brought forward, after making adequate reserves in respect of excess profits duty and corporation profits tax. Provision has been made in the profit and loss account as usual for the instalments required for the redemption of the debenture stocks as well as for sundry other charges for depreciation and sinking fund. These items, together with the amount of £250,000 carried to the general depreciation account, amount to £328,848.



## CONTENTS.

Reason <i>versus</i> Egotism . . . . .	PAGE 307	The Architectural Association . . . . .	PAGE 311
Illustrations . . . . .	308	"The Architect" Fifty Years Ago . . . . .	312
Notes and Comments . . . . .	308	Acoustics as Applied to Buildings.—II. (Illustrated) . . . . .	313
Proposed Post Office, Reading (Illustrated) . . . . .	309	Correspondence . . . . .	317
Competition News . . . . .	309	The Architects' Welcome Club . . . . .	318
Forthcoming Events . . . . .	309	Electric Lighting in Schools . . . . .	320
London Art Galleries . . . . .	310	Royal Institute of British Architects . . . . .	322
Art News of To-day . . . . .	310	Progress of Housing Schemes . . . . .	322

Reason *versus* Egotism.

A GOOD deal has been heard of late of the disastrous æsthetic effect of selfishness in architecture, of the melancholy consequences of designing a building apart from its surroundings, a process which may spoil a neighbourhood for ever, yet against which legislative protection appears impossible. It seems incredible that the evil should not only exist, but actually be spreading, as a glance at any great street in London or a provincial town will show; and the only cure appears to be an increased sensitiveness to public rights, an increased perception of the folly of selfishness and the rule of taste, a thing at first sight of slow and doubtful growth.

Yet there is no reason to despair of improvement; the very stress now laid upon the evil should suffice to give pause to any architect employed upon a building related to other buildings by position and prominence. There was a time, and that not so remote, when an architect or sculptor, accepting a commission for a monument, for a cathedral or parish church, did not trouble to visit the site in which such a monument was to be set up, or even to inquire about the exact space available for his work. The monument was completed, and sent to the church to be set up by local masons, who had no hesitation whatever in doing away with traceries, cutting into arches, or otherwise damaging the structure to get the monument into position. Thus when Nollekens produced a monument representing "Benevolence suspending a circular medallion on which is a profile of the deceased" for the church of Brington, Northants, it was placed against the great east window, blocking up all but the tops of the lights. Sometimes the damage done was accidental. When Chantrey, for instance, produced one of his five statues to James Watt for Westminster Abbey it was hauled with the greatest difficulty, in three pieces, into the little chapel of St. Paul; so great was the weight, even so, that the floor gave way beneath it and the workmen were all but hurled into the vault below, where rows of coffins were visible through the gaping pavement. Such an incident would be impossible now, but it is less than a century since this preposterous exhibition of artistic egotism took place within the overloaded walls of the Abbey itself. Professional and public opinion have both advanced since then; why should we despair of seeing a similar improvement in regard to architecture, in which egotism is far less pardonable because far more conspicuous? For one person who is offended by Chantrey's works hidden away in the little chapel of St. Paul, thousands are, consciously or unconsciously, annoyed by a building which catches the eye by its ostentatious ornament or disproportionate size; and it is only because we have so long accepted the vagaries of street architecture without protest that public opinion has until recently failed to denounce such qualities as outrageous and intolerable.

The memorial window is another example of the same kind, and here again public opinion has effected a great improvement. The stained glass of the 'forties and 'fifties is now a byword, yet at the time no protest was made against the permanent disfigurement of our churches and cathedrals by work of an utterly unsuitable and inartistic character. The immensely more intelligent attitude of diocesan chancellors, the greater stringency in the granting of faculties for the erection of new ecclesiastical ornaments, is a thing of to-day, and every year sees an improvement in this respect. Here again reason has replaced egotism, and the process gives us fresh ground for hope in the larger question of new buildings and the consequent improvement of public taste. If the R.I.B.A. would officially urge upon its members the importance of taking into consideration the surroundings of a new building and the character of the neighbourhood much might still be done, and the taste of the commercial employer—usually the greatest sinner in this respect, since he is apt to regard the proposed new building from the point of view of his own trade—would be automatically improved, since he would discover that the character of his premises had a public as well as a private interest.

Considering the public taste is, however, a rash thing to advise, in the present instance it is certainly enlightened, but past experience has taught us that it may not always be so. No doubt the public taste was enormously pleased by the erection of an ugly Georgian church at Neot St. Laurence, in the place of the delightful late Perpendicular edifice now in ruins near by, but in this instance posterity is against that taste, because Reason is against the needless replacement of the old by the callow new. Where, in fact, can we draw the line in the matter of substituting the new for the old? It is said that a great public school, contemplating a war memorial, determined to obliterate large parts of the existing structure in favour of a dignified and coherent plan. The usual conservative protests against any removals were loud at first, but as time went on they died down, and the voice of Reason began to be heard. "Much of what you propose to destroy is good; then why destroy it?" And in the end the coherent and unified plan was given up, and a more modest scheme substituted involving the preservation, not the destruction, of all that was worth preserving. Egotism—the egotism of the War Memorialist—was worsted, and the triumph of Reason was complete.

*Adsit omen!* There is a unity of character in a street, a neighbourhood, as well as in a single building, and it is our duty not to outrage it. It has taken us long to learn to respect the individuality of their children; we have still to learn respect for our surroundings. But we shall have taken a step in the right direction merely by recognising that it is our duty to do so, and the recognition of a truth is only the preliminary step to its universal acceptance.



## Illustrations.

LONDON COUNTY WESTMINSTER AND PARR'S BANK, LTD.—REBUILDING OF HEAD OFFICE, LOTHBURY, E.C. (VIEW FROM BARTHOLOMEW LANE). SELECTED COMPETITIVE DESIGN. MEWES & DAVIS, Architects.

## Notes and Comments.

**The New Associates of the Royal Academy.**

WE are glad that a deserved honour has been paid to Sir John Burnet, whose election will be specially welcomed in Glasgow, of which city he is a distinguished son. We in London are accustomed to recognise Scotsmen as among the most outstanding figures in all professions and pursuits. Not the least advantage of the Union of the Crowns in 1603 has been the enrichment of our public life by the inclusion of the more virile element which has its home to the north of the Tweed. Sir John Burnet's ability and scholarly refinement have been evidenced in many buildings, both in his native land and here, and he is well fitted by his attainments to fill the rôle of leader of his fellow-architects. The election of Mr. Augustus John means the broadening of the Academy by the inclusion of one whose ability has forced recognition despite conventions. It will be interesting to note whether entrance between the portals of Burlington House affects—as it often does—the tenor and type of an artist's work. Nothing is more interesting than to note the gradual change which time and experience bring. We can just remember when Brydon fittingly represented the movement of revolt against conservatism at the Institute, and we can all remember how he became one of the staunchest and most conservative of its supporters. It has been truly said that nothing endures except change!

**Sir Charles T. Ruthen, O.B.E.**

WE are pleased that one of the first announcements made in consequence of the change at the Ministry of Health should be the appointment of Sir Charles Ruthen as Director-General of Housing, and we have little doubt that his shrewd common sense and kindness will be useful both to Sir Alfred Mond and to the profession of architecture.

Common sense is a misnomer, for it is most uncommon to find men who have the marked capacity to gauge cause and effect which its possession should imply. Most men fail in whole or in part—not from want of capacity to do—from want of that quality of judgment which is required to enable them to recognise the gradual steps by which the greatest achievement alone is made possible, with the result that many of us spend unsatisfactory lives in tilting at windmills. The honours which have been bestowed on Sir Charles Ruthen have not spoilt him, but have rendered him more anxious to help others, and he is happy in the possession of a vein of optimism which it is pleasant to meet with in life.

**The Public Lectures at the R.I.B.A.**

BOTH the subjects and the lecturers of the series of public lectures on architecture at the R.I.B.A. have been well chosen, and the series is fittingly introduced by Mr. A. Clutton Brock's paper on "Architecture as Everyone's Concern," while we are promised something highly controversial by Mr. Roger Fry, who will deal with "The Architectural Heresies of a Painter." Judging by Mr. Fry's views on his own art, his views on ours should be both novel and interesting. It has long been felt that a departure should be made at the R.I.B.A. with the object of enlisting public interest in architecture, and we have little doubt that this series of papers will be as successful as those given at Carpenters Hall, which have met with so marked a success in the past. We should have liked to see Mr. Baillie Scott's name among the list of lecturers, as he possesses both the conviction and combativeness which render the presentation of a man's views interesting and useful, while his gift of expression in words is not even second to his gifts as an architect, exceptional as these are, but we hope that in a future list his name will be included.

**The Protest of the Reading Society of Architects.**

THE Reading Society of Architects have sent a protest to the Post Office with regard to the design of the new central post office in their town. They do not consider it sufficiently marked in character and treatment for a building of its importance, although they do justice to its quality of restraint and proportion. Judging by the illustration we give, the design errs—if it does err—on the side of simplicity, but this is so unusual and admirable a fault that we are a little sorry that the architects of Reading should have protested at all. It is true that the façade might be that of an old Georgian house which had been converted into a post office, but we do not think it is the worse for that, for such buildings give a quiet charm to many of our older towns. After all, a post office is a strictly utilitarian building used for a very clearly defined purpose, and as long as it is well proportioned and convenient nothing more seems necessary. We must also remember that the great need of to-day is reasonable economy, and we should be grateful that the Post Office recognises this when it has to expend money in new buildings. While we have to pay the present rates for postage, the community have no wish to see the authorities lavish in other and unnecessary directions, for which reason we are inclined to give a verdict for the defendants without costs!

**Expensive Forestry.**

WE complain of high prices here, but the account given of the cost of removing two trees at Port Darwin, Northern Australia, surely beats the record, and we are not surprised to hear that the district is one which has been noteworthy for its labour troubles.

Twenty men were employed on the job at 5s. an hour, working eight hours a day for seventeen days. Two motor-cars were hired to take the men to and from work every day as the aerodrome is three miles out of the town.

The cost of the work was:—

Wages	...	...	...	...	£680
Motor-car hire	...	...	...	...	87

Total, for removing two trees ... £767

We should be greatly interested to learn what the expenses of living at Port Darwin are. We should judge that it is a locality a short residence in which would deplete the accumulated funds of any millionaire.

**The New Housing Policy.**

THE Secretary for Scotland has decided that the subsidy shall be continued until 1924, but the conditions in England are believed to be less acute. The original estimate, which the Ministry of Health based on returns from local authorities, disclosed a need for half a million houses. That estimate has since been questioned, notably in the last report of the Registrar-General, where, on a population basis, it was calculated that, apart from replacements of defective property, the number of new houses required was 140,000.

One of the objects of the new survey is to ascertain whether, after July next year, the building of houses can be left to private enterprise. By then about 200,000 houses will have been erected under the State schemes.

We look forward to the report of the new survey with great interest, but hope it will include data as to the extent to which the housing undertaken in certain districts is in excess of the amount required as ascertained by the new survey. It is true such figures would not be directly useful, but they might afford valuable data to convince those in authority of the danger of precipitate judgments.





THE ARCHITECT, APRIL 29th, 1921.







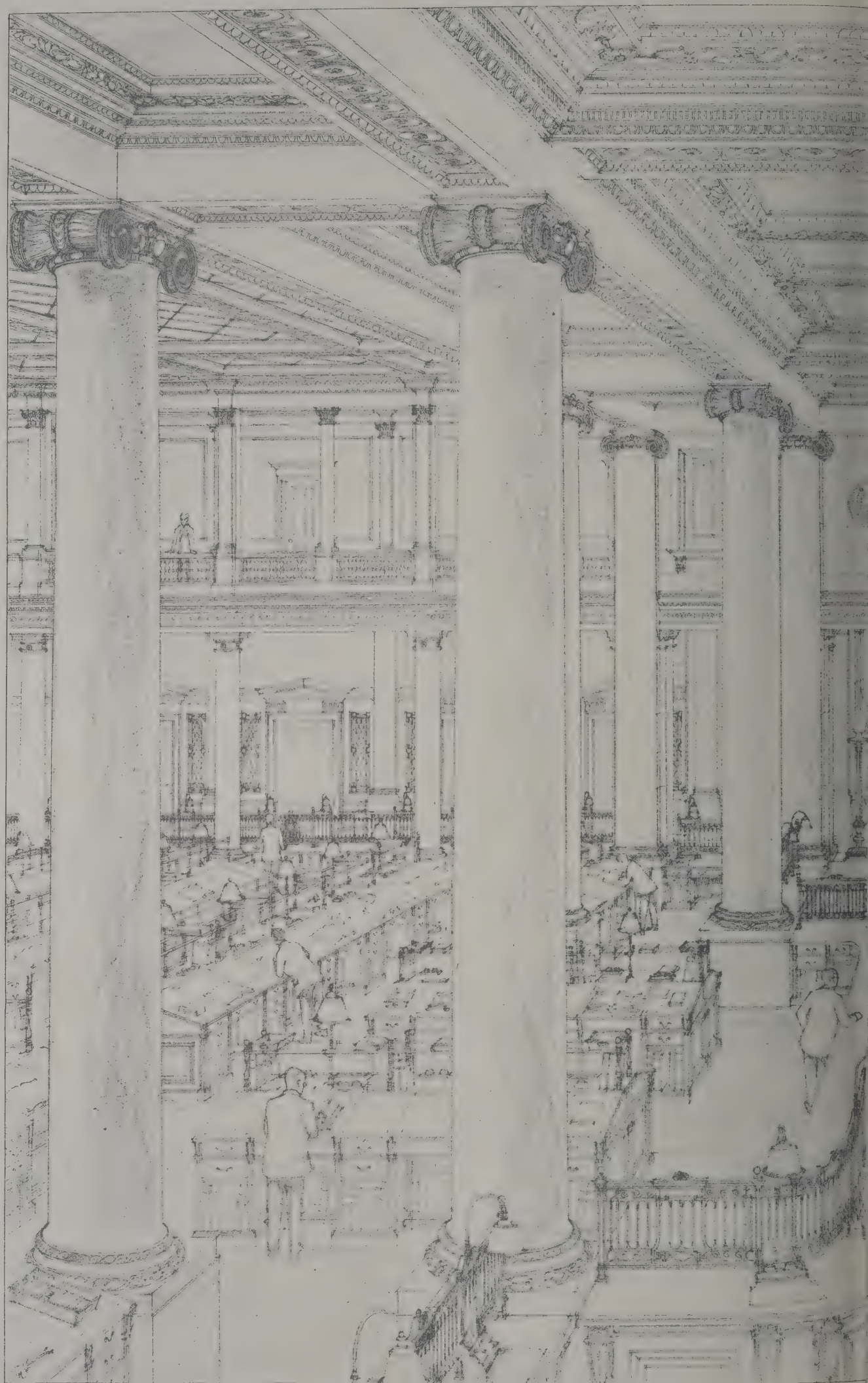
SCREENLESS PHOTO PROCESS, SPRAGUE-HAYCOCK (PRINTERS) LTD. 69 & 70 DEAN STREET, LONDON W.1.

LONDON COUNTY WESTMINSTER & PARR'S BANK LTD.:  
REBUILDING OF HEAD OFFICE, LOTHBURY, E.C. (VIEW FROM BARTHOLOMEW LANE). SELECTED COMPETITIVE DESIGN.  
MEWÈS & DAVIS, ARCHITECTS.











29th, 1921.



SCREENLESS PHOTO PROCESS, SPRAGUE-HAYCOCK (PRINTERS) LTD. 69 & 70, DEAN STREET, LONDON, W.1.

IR'S BANK LTD.:  
EW. SELECTED COMPETITIVE DESIGN.





## Proposed Post Office, Reading.



### Resolution passed by the Council of the Reading Society of Architects on April 21, 1921:—

THE Council of the Reading Society of Architects, having seen in the local press a reproduction of a drawing showing the Friar Street front of the proposed Head Post Office for the County Borough of Reading, and assuming that the building actually proposed is fairly represented by that print (copy attached), whilst recognising the quiet restraint and many excellences of the design from an academical point of view, nevertheless, from a public point of view, feels compelled to voice the general feeling of disappointment felt with regard to the elevation of the building on the following grounds:—

1. That the design lacks the character, dignity, and importance which the size of the town, the purpose of the building, and its position demand.

This criticism is not intended to be against the adoption of the Georgian Style, but only against its suggested application.

2. That the design does not indicate a building belonging to an important State Department and is void of the generally recognised attributes of such a building.

3. That the entrance doors for the public and the central post box are inadequately emphasised. Moreover, apparently there is no provision for the proper display of the necessary public notices.

4. That the example set by a great State Department should give a lead for a higher standard of architectural beauty and fitness.

5. That the design has evidently been produced with laudable economic intentions, but it is felt that many advisable improvements may be made without unduly increasing the cost.

## Competition News.

THE award of premiums in the R.E. Memorial Competition has had to be postponed owing to Army mobilisation, but will be announced shortly.

THE Sutton Coldfield War Memorial Committee invite designs for the erection of a cenotaph or monument in King Edward Square. Particulars may be obtained from Mr. T. Ellison, Council House, Sutton Coldfield, to whom the designs should be sent on or before May 14.

OUT of sixty competitive designs for Campbeltown war memorial, that of Mr. A. N. Paterson, M.A., F.R.I.B.A., A.R.S.A., Glasgow, has been selected. The prize design is suggestive of the Wallace Monument, Stirling. The monument will be about 12 feet square and 55 feet high, and will be erected in Kinloch Park at a cost of about £3,000.

THE R.I.B.A. Competitions Committee desire to call the attention of Members and Licentiates to the fact that the conditions of the Hagley War Memorial Competition are unsatisfactory. The Competitions Committee are in negotiation with the promoters in the hope of securing an amendment. In the meantime Members and Licentiates are advised to take no part in the competition.

IN the competition for a memorial to be erected within the main vestibule of the High School of Glasgow to the

former pupils of the school who fell in the war the following awards have been made:—(1) Mr. W. J. B. Wright, Licentiate R.I.B.A., 170 Hope Street, Glasgow; (2) Mr. Donald McKay Stoddart, Licentiate R.I.B.A.; Messrs. A. N. Paterson & Stoddart, 266 St. Vincent Street, Glasgow; (3) Mr. Neil C. Duff, F.R.I.B.A., 187A West George Street, Glasgow. The competition was confined to former pupils of the High School. Mr. John Keppie, F.R.I.B.A., acted as assessor.

## Forthcoming Events.

*Monday, May 2.*—Royal Institute of British Architects.—Annual General Meeting at 9 Conduit Street, W. 8 P.M.

*Wednesday, May 4.*—Institution of Sanitary Engineers.—Meeting at Caxton Hall, Westminster, S.W. Paper by Mr. S. A. Battey entitled "Water Meters and Water Waste Preventing Fittings; their Construction, Relative Merits, and Application." 7 P.M.

—Royal Archaeological Institute.—Meeting at the Society of Antiquaries, Burlington House, Piccadilly, W. Papers by Dr. Philip Nelson, M.D., F.S.A., entitled (1) "English Mediæval Alabasters in Iceland and Denmark," and (2) Some Unpublished English Alabasters." 4.30 P.M.

—Institution of Civil Engineers.—Meeting at Great George Street, Westminster, S.W. Presentation of the Kelvin Medal to Dr. W. Cawthorne Unwin, F.R.S., by the Right Hon. A. J. Balfour, O.M., F.R.S. 4 P.M.

*Thursday, May 5.*—Royal Institute of British Architects.—Public Lecture at 9 Conduit Street, W., by Mr. F. C. Eden, M.A., entitled "Architecture and Travel." 5 P.M.

*Saturday, May 7.*—Royal Institute of British Architects.—Visit to the new London County Hall under the direction of Mr. Ralph Knott. 2.30 P.M.

*Monday, May 9.*—Surveyors' Institution.—Meeting at 12 Great George Street, Westminster, S.W. Paper by Mr. T. A. O'Donahue, F.S.I., entitled "The Valuation of Mineral Properties, with Special Reference to Post-war Conditions." 8 P.M.

*Wednesday, May 11.*—Royal Institute of British Architects.—Annual dinner at the Princes' Restaurant, Piccadilly, W. 7 P.M.

MR. R. ALLSEBROOKE HINDS, F.R.I.B.A., architect and surveyor, having severed his connection with the Housing Department of the Ministry of Health, announces that he is now occupied in private practice at 8 Duke Street, Adelphi, W.C. 2.

PROFESSOR WILLIAM ALPHONSUS SCOTT, A.R.I.B.A., of Dublin, who occupied the Chair of Architecture at the National University of Ireland since its inception, has died at Kingstown.

THE will of the late Mr. John Sansom, F.R.I.B.A., of Liskeard, Cornwall, for some years architect to the Duchy of Cornwall, has been proved at £4,569. The late Mr. Frank Small, of Newport Road, Cardiff, left estate valued at £12,349.



"THE BELVOIR HUNT." By Mr. A. J. MUNNINGS, A.R.A. Hounds ready for exercise, showing the archway to the old kennels and feeding house.



## London Art Galleries.

(All rights reserved.)

ON Wednesday, April 20, was opened at the Gallery of the Alpine Club, in Conduit Street, W., an exhibition of the paintings of A. J. Munnings, A.R.A., including pictures of the Belvoir Hunt and other scenes of English country life. Mr. Munnings, whose work I have often had occasion to mention before in London exhibitions, excels in such subjects as these, and notably in his painting of horses. In this last field of art it is a question whether there is anyone to touch him among living British artists. In his admirably written foreword to this exhibition the poet John Masefield, whose poem on Reynard the Fox had something to tell us on hunting and horses, remarks: "I think no one has so deeply felt the beauty of our horses. Let all look at the three types of horse that Mr. Munnings paints with such feeling and such power: the hunter, the hack, and the thoroughbred steeplechaser." And he adds a point which is not to be missed here. "Nearly all these paintings have for background the lovely, various English landscape. There is no landscape to compare with it for sweetness and gentleness. Mr. Munnings' sense of it is as fresh as a primrose."

There is another subject here which is also alluded to in this note of preface, and which seems to me of special interest: this is the life of the gypsies. Mr. Munnings has long been attracted by this theme, and I remember a recent exhibition in Bond Street which was mainly devoted to it. The gypsy is the one untameable thing left in our modern machine-made civilisation. "He comes out of mystery . . . he is outside all machines and systems . . . he is in our world but not of it." Talking to the artist yesterday he told me something of the attraction these people have for him, most of all those who come up for our great race-meeting at Epsom from the West Country, just as he has painted them here in his "Gypsy Life" and "Arrival at Epsom Downs for Derby Week"—dark-skinned folk, but with fresh colour and tanned with wind and sun, the women with big hats with plumes and dashes of bright colour in their dresses—just the same people still whom George Borrow lived with, and described in such unsurpassed English. Mr. Munnings, himself a student and lover of Borrow, stays often with these gypsy folk, and comes, as he told me, from Borrow's own country in East Anglia. Purely as painting here "The Frisian Bull" claims a first place: as a piece of clean, true drawing and luminous colour it is as fine as the Venetian Beppe Ciardi's famous "Vacca," which was the talk of one of the Venice International Exhibitions.

The hunting subjects come next—"Hounds ready for Exercise" in the old kennels or returning from exercise on a late December afternoon, "A Hunting morning at the Kennels," and "In the Belvoir Woods." Then the racing pictures—the splendid thoroughbred being stripped in "The Red Prince Mare," the portrait of another thoroughbred, "Lady Torrington's Horse, Rich Gift," and the other horses in a hunting scene, "A Fast Forty Minutes," and in the "Belvoir Point-to-Point Meeting." The backgrounds of English landscape are excellent, and in their place: the pure landscape seems less directly felt, and even in "The Mill Pool—Afternoon," which is one of the best, the water in the foreground is open to criticism. But the whole show is of first interest: it is the sentiment of sport, of the free country life, but handled with the knowledge and feeling of a fine artist.

The exhibition—the third in order—of the Society of Animal Painters at the Fine Art Society comes very appropriately with the one I have just mentioned; for these studies of animal life, wild and tame, show very good painting and observation. Notably in the wild fauna, Herbert Dicksee in his leopards ("Repose" and "The Pool"), and Arthur Wardle in his fine lioness

("Queen of the Night"), his tigers and polar bears ("Sea Kings"), and Bryan Hook's "Giraffes in Kenya Colony": in cattle and horses, Robert Morley's cattle in twilight ("In Doubt"), and Lucy Kemp Welch's cart-horses in the "Heat of Noontide," and turning home, "Above the Shadows."

I noticed here especially George Pirie's fine study of a "Leghorn Cock" and "The Family," where the cat holding a mouse for her kitten's education is a wonderful bit of feline life. In the water colours I liked particularly Allen Seaby's "Pike" and Winifred Austen's "Young Owl Mobbed." In the inner room here Mr. Stafford Leake is exhibiting water colours of England and France, with cool grey tones and spacious skies—"The Chalkpit," "The Top of the Hill Ardèche"), with some studies of German East Africa.

The eighteenth exhibition at the Little Art Rooms consists of paintings and woodcuts by Miss E. McNaught, mostly of Welsh scenery ("A Deserted Quarry" and "Llyn Dinas"), and water-colour drawings and etchings by Miss E. Druce. The next volume in order of the excellent series of "Modern Woodcutters," published from these Galleries, is now due to appear, following on Gwendolen Raverat and Frank Brangwyn.

S. B.

## Art News of To-day.

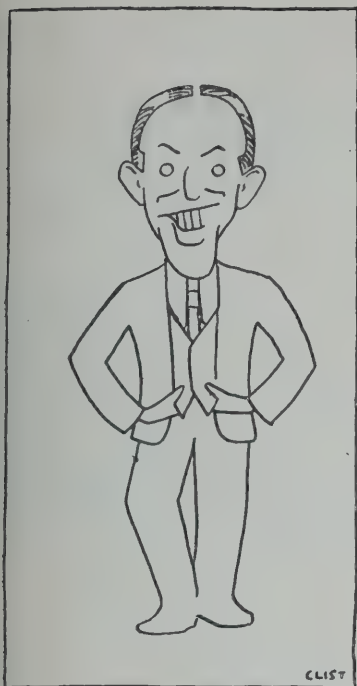
THE announcement of the election of Mr. Augustus E. John to be an Associate of the Royal Academy is one which gives great satisfaction both to a large number of the general public and to the many admirers of that brilliant and talented artist. Mr. John, who is President of the National Portrait Society, studied at the Slade School, where all the more important prizes for painting and drawing fell to him during his studentship. The high promise then revealed has in no way failed: we had occasion in these columns last year to express our opinion of the remarkable series of portraits which he was then exhibiting at the Galleries of the Alpine Club. Apart from his portrait work Mr. John is a very fine figure draughtsman and a most successful etcher.

We have already called attention to the sale of Mr. J. P. Heseltine's collection of Greek and Roman Antiquities at Messrs. Christie, Manson and Woods on Tuesday, April 19, as one of exceptional interest. The beauty of some of the Tanagra figures, the Greek vases and Greek and Roman bronzes there displayed was very remarkable. Among these was the terra-cotta of "Flying Niké," the wings missing, but otherwise a perfect work of the best Greek period, which fell to Mr. Partridge on Tuesday for £115: the "Greek lady at her toilet," draped in chiton and chlamys, in the Attic style brought £60, and the dainty reclining figure (350-300 B.C.) of a courtesan or dancer, fell to Mr. Clement for £40, while an undraped reclining "Aphrodite and Eros," a Tanagra of first importance, brought £44.

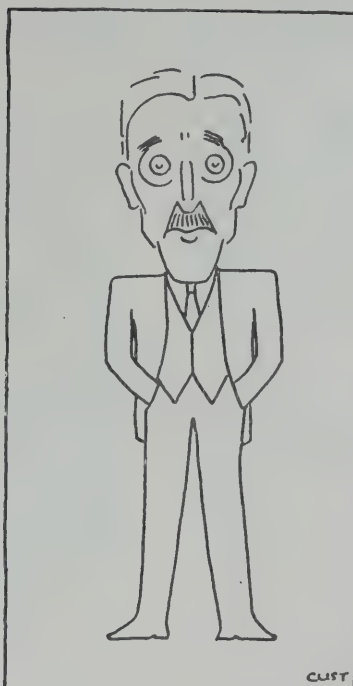
Among the bronzes very notable was the mirror-back in repoussé, of "Hercules and Omphale," Greek work of the fourth century, the figures of great beauty being practically complete. This fine composition brought £7 from Mr. Holland, and a remarkable Persian bronze lion said to come from the Palace of Darius at Susa, with lovely patina, fetched £105. Besides these the collection included a fine selection of Greek and Roman coins, among which the superb medallion (dekadrachm) of Syracuse, with the head of Arethusa, around which dolphin sport, on the reverse a quadriga with the figure of Victory, fell to Messrs. Spink, who also secured two of the finest Greek vases, both being a red figured kylix—on belonging to the great period of red figure-vases, with marvellous frieze of figures, the other Roman, but of good design—for respectively £30 and £15.

It is only occasionally that a collection of this high level comes into the market: an event of equal, or even greater, importance will be the sale of the Morgan Williams arms and armour and English oak furniture on April 26.

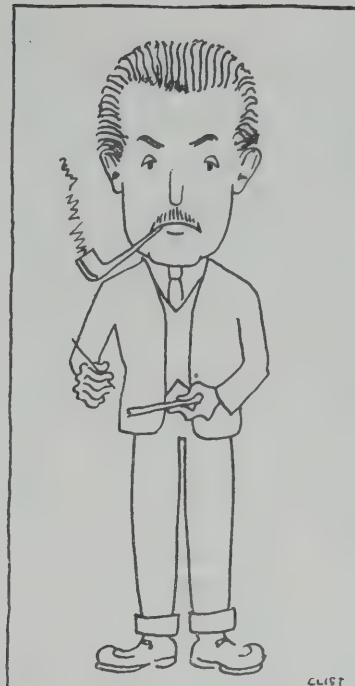




SIR LAWRENCE WEAVER, K.B.E.



MAJOR H. P. G. MAULE.



MR. HAROLD FALKNER.

## The Architectural Association.

AN ordinary general meeting of the A.A. was held on Monday last, the 25th inst., at 34 Bedford Square, W.C., Mr. W. G. Newton, M.A., vice-president, in the chair.

There were fifteen nominations for membership; and sixteen new members, of whom fifteen were ladies, were elected.

The principal business of the evening was to hear an informal paper, or more correctly a running series of comments on a series of slides, by Sir Lawrence Weaver, K.B.E., arising out of his work as Director-General of the Land Department of the Ministry of Agriculture. Most of the slides had previously been shown at a recent meeting of the R.I.B.A. when Sir Lawrence devoted most of his paper to an account of the organisation of the department. The present lecture he called: "Rural Cottages: Common Sense and Architecture." The lines on which the Ministry had gone were, he explained, these: they must have for the cottages, good plans, sound materials and a seemly appearance. Their problem had been as to how these three requirements could be combined to suit the economic disadvantages the country was suffering from at the present time. The Ministry had erected a large number of cottages on their own agricultural estates, and others had been built by the County Councils. His department had to see that the County Councils did their work as decently as possible. The ordinary County Council possessed only a very dim idea of the sort of man who should be employed as an architect. His department had not always succeeded in getting what they wanted; but he thought the general average was on the whole decent, i.e., as decent as could be managed with the money at their disposal. The department had started out in the beginning of 1919 with very great ideas of providing homes really fit for heroes. But it had been ever since a slow descent into Avernus as each ideal had in turn to be given up and contentment found in a mere minimum of decency. But that minimum had been retained. From the first they were faced with the very grave difficulty with regard to the supply of materials and still more with regard to supply of skilled labour. At the Ministry's settlement at Amesbury the Department of Scientific and Industrial Research were allowed to erect five experimental cottages: some of the results were interesting and some were astonishing. But the broad conclusion arrived at was that it was better to stick to brick and not to mess about with other materials. No one should regret in the least that these experiments had been carried out. Having sown their wild oats at Amesbury, the Ministry proceeded to embody

all the tips in their settlement at Sutton Bridge, in Lincolnshire. Of Sutton Bridge they felt very very proud. The Ministry had in all their work done their very hardest to stick to the idea of a parlour and of a proper bath room instead of a bath fixed in the scullery or no bath at all. It was the greatest nonsense to say that small holders would only use a bath to keep potatoes in. For fear of rousing public indignation, though, the bathroom had been labelled on the plans as a wash house.

Sir Lawrence Weaver then threw on the screen a large number of photographs of work carried out at the Ministry's settlements and on County Council Small Holdings, accompanying each with remarks both explanatory and critical.

Mr. J. Alan Slater in proposing a vote of thanks said that Sir Lawrence's influence on architecture in the past had been mainly in the field of literature: now he held a wider and more practical power, viz. the control of bricks and mortar. It seemed to him that one of the most interesting things they had heard that night was the conclusion come to after the experiments of the Department of Scientific and Industrial Research. Architects had for some time been racking their brains over these various new forms of construction. It was, therefore, of the utmost importance to them that it had been proved beyond all question that brick was still the thing to build in. He was very interested in listening to what Sir Lawrence had spoken about pisé. At the Association they had recently heard a paper on Pisé from Mr. Clough Williams-Ellis who was a great advocate of the method and had interested them all. But Sir Lawrence had just told them there was no economy because of the overhang of the eaves and the wider spread of the foundations. Another point arose out of the employment of thatch: Sir Lawrence had said that if the cottage was thatched they roofed the outbuildings in tile or slate for the purpose of the rainwater supply. It was, of course, possible to collect water off a thatched roof, as had been done at a farm where he stopped last Easter. In conclusion, he would express a hope that that would not be the last appearance of Sir Lawrence in that room.

Mr. Cyril Farey seconded the vote of thanks.

Mr. W. G. Newton said it was very interesting to see what pleasant work was being done for the Department all over the country from Cornwall to Anglesey. In Ireland, he understood, the Government cottages were like a red rash over the green isle. It was owing to Sir Lawrence Weaver and his team of architects that they had been spared that fate in this country. One felt grateful for a tabulated series of experiments which



proved the new building materials were not cheaper than brick. It was their clients who kept architects on the rack with their desire to use this, that, or the other material. Architects' hands had been strengthened now that they knew the old simple materials are still the simplest and the cheapest. One of their visitors that night was Mr. H. P. Maule, who had been at the A.A. but little since, some years ago, he was the very-much-loved master of the school before he went off as Company Sergeant-Major with the Honourable Artillery Company at the beginning of the war. After being away from architecture for some years he took up this work with the Ministry of Agriculture.

Mr. H. P. Maule, in speaking of his work at the Ministry, where he is now chief architect of the Department, said he had had such a loyal, enthusiastic set of able men who knew their job, that he personally had had very little to do. It was soon found absolutely impossible to get bricklayers or bricks in any large quantities. He did not feel inclined to say that concrete built *in situ* was always more expensive than brick: but at first, before the men have been trained, it may certainly prove so. After experience has been gained its cost ought to considerably decrease. For example, the first pair of farm buildings they built in concrete cost £300, whereas the second pair, built by the same gang of men, cost £100 less and were comparable to brick. It was dangerous to generalise, because so many factors might make a difference. Where bricks and bricklayers were easily obtainable, that form of construction would probably be cheaper. He did not believe in any system which failed to give a continuous cavity so essential to thin walling. There existed a prejudice against collecting rain-water off a thatched roof; besides, the provision of guttering proved costly. In some parts of the country the rain-water was what was chiefly drunk by the cottagers, as well as used for washing clothes. Next as to pisé. If the right soil was handy and the right man was trained sufficiently quickly to do more than one cottage, the use of pisé might prove quite suitable. Sometimes a soil which looked quite satisfactory proved otherwise, as had occurred in one of their experiments in which, after three days of north-east wind, the pisé was twisted all over the place. Pisé undoubtedly gave a very pleasant house to live in with its thick walls, and there was no reason to suppose they would not endure. He advised anyone building in pisé to make use of wide-spreading eaves and to avoid gables. The Department learnt that the average standard of work from the provinces was extremely poor. The duties of his staff had been largely that of endeavouring to improve the plans and sections submitted for approval. After all, the unit of architecture anywhere was a habitable building. The largest number of people in this country lived in quite small houses. Nevertheless their rights have hitherto been ignored. Last week he had been told by some tenants at Sutton Bridge that they had a sunny room to live in for the first time. All members of the A.A. were students of architecture and imbued with the extreme "highness" of their calling: but they could not exaggerate the importance of successful building so far as it affected the people who inhabited those buildings. The essential thing was that the building should be suited to its purpose. If in section it is suitable and in elevation pleasant to look upon, they would have got a fit building and probably a fine building. There was an extraordinary ignorance of the right use of materials. A good plan and section might have an appalling result from the misuse of material. There was a vast room for improvement in almost every single particular. Few architects would ever have the good fortune to design a building of the first magnificence, but anyone could contribute to the health and happiness and efficiency of the people who were going to inhabit such buildings as they put up. Though their thoughts might be with the stars, their feet ought to be on the hard road. Reasonableness, common sense, and the desire to produce the right sort of building, because they knew what they were doing, ought to be the aim of each member of the profession.

Answering a question as to the best sort of range to introduce, Mr. Maule said that the choice all depended upon what part of the country the work was being carried out in. A range suitable for Dorset would not be allowed into the house by a Yorkshire housewife. When beginning the Ministry's work he had tried to induce a manufacturer to produce a post-war article, but was met by the statement that his range had been the best in the market for the past twenty years. However, there were now a lot of excellent ranges to choose from. As damp courses, he did not think it was possible to beat slate and cement; for reasons, however, of economy they had had to fall back on one of the patent dampcourses. The latter was certainly a good thing, but as soon as circumstances permitted he hoped to go back to slate and cement. A Norfolk reed thatch would last seventy years, except perhaps at its ridge; the wire lengthened its life, as it preserved it from the birds. A straw thatch of to-day was not so good as one of old-time straw, because the straw was now bruised when threshed by machinery. There was not much difference in respect of cost between thatch and tiling.

Sir Lawrence Weaver, replying to the point raised by Mr. H. Falkner who considered the cheapest way of getting the programme done would be by employing speculative builders, said that until three months ago the *genus* speculative builder seemed to have ceased to exist. The Department would be only too glad to receive tenders. He was most emphatic that a way out was not to be found by the adaptation of Army huts. These had been extensively used in East Anglia, but the day of reckoning would come all too soon. Nor was it helpful to talk about the admirable methods adopted by the Governments of such countries as Holland, Belgium, and Germany. The simple fact was that none of those countries, despite their fine theories, had done anything at all since the war. Great Britain alone was redeeming her pledges. In England and Wales 13,444 houses had already been built by his Department. They did not pretend to be engaged on a sound business proposition; their whole effort was to cut the inevitable loss, estimated at 40 per cent., down to the lowest possible limit.

## "The Architect" Fifty Years Ago.

APRIL 29, 1871.

THE Architectural Association made, in 1850, a laudable effort to define what architects really wanted of the public, and it has left in print a code of regulations, suggested by a committee appointed in 1849 to deal with the subject. It is not a little curious to see how coincident are some of its proposals with those of the American Conference.

### AMERICAN CONGRESS.

Accepts the competition principle as it stands.

Strict exclusion of all designs that transgress the hard and fast line of programme.

Decision by a jury of experts, one-half being architects.

Public exhibition of designs before the decision.

Certain employment of successful competitor if work be carried out.

Special payment for portions of designs made use of.

### ARCHITECTURAL ASSOCIATION.

Speaks of competition as "a system, if properly conducted, replete with advantage to art."

Designs so disqualified "to be at once set aside, so as not to be laid before the adjudicators."

Committee to be guided by opinion of some one or three non-competing architects, to be recommended to them by the competitors.

Any exhibition of designs to precede the adjudication.

Architect whose design is selected to be employed as architect of the building or to have 1 per cent. on estimate of his design deducted from payment of architect employed in his stead.

There is one demand of the American Congress which we do not find in the programme of the Architectural Association, and this we trust any competition committee emanating from the forthcoming English Conference will insist upon. It is the *non-merging of premiums* in subsequent commissions, a custom of intense shabbiness, for which public committees have of late evinced a wondrous affection.

WE regret to announce the death at Weybridge on Monday last, the 25th inst., of Mr. George Lay Crickmay, F.R.I.B.A., eldest son of the late Mr. G. R. Crickmay, F.R.I.B.A., F.S.I. The deceased was elected a Fellow of the Royal Institute in 1888.



## Acoustics as Applied to Buildings.—II.\*

By Hope Bagenal, A.R.I.B.A.

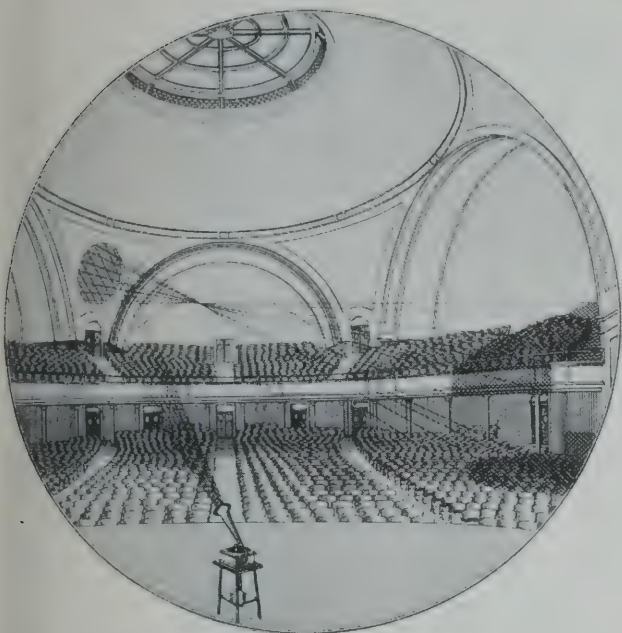


FIG. 1.—Auditorium, University of Illinois. Diagram showing an Example of a long reflected Path. Experiment by F. R. WATSON.

(Continued from p. 254.)

ONE of the infallible symptoms, in practise, of an excessive reverberation is the fact that the louder the voice the worse the hearing. But a little thought must show that between these extremes of  $T=0$  and  $T=3$  there must be a considerable mean range in which a moderate reverberation will ensure a moderate conservation of energy helpful to a moderate voice. The limit of  $T$  for the speaking voice is about two seconds for good practice.

From the practical point of view my own experience of auditoria makes me think that an architect should be specially on his guard against a long reverberation where small halls and lecture-rooms are concerned. It is quite possible to get a long reverberation in a small hall, and it is then specially annoying for the reason that the speaker is near his audience and expects to be able to address it flexibly and intimately. In a large hall for public speaking the expectations of a speaker are different. The British parliamentarian of any standing has had a hard training in what are probably the worst auditoria in the world, namely, the House of Commons and the Albert Hall. Like a good cinema actor he has certain standard gestures—gestures for expressing the accepted political emotions, which a well-trained British audience understand at once without having to hear the actual words. But the value of context and association as a factor in audibility must always be borne in mind. In church the loss of one word in five may pass unnoticed owing to the fact that we are so familiar with accepted religious phraseology that we unconsciously supply the missing words. This was proved by careful experiments undertaken at Adelbert College for the sake of improving the acoustics of a large Gothic chapel ("Science," New York, November 1913 and August 1915). They show beyond a doubt that the loss of one word in five when the factor of association was absent meant decidedly poor audibility.

The loss of one word in five, one in ten, and one in twenty, correspond to an audibility of 80, 90, and 95 per cent. In an unfamiliar discourse 95 per cent. means excellent hearing, 90 per cent. is fair, but if the number of words heard is only 80 per cent. of the whole the hearing is poor, and below 80 per cent. runs rapidly into unintelligibility. But where the discourse is familiar that 80 per cent. can be subconsciously supplemented so that in judging the acoustic properties of a hall the factor of

familiarity or unfamiliarity may make all the difference between a verdict of good hearing or decidedly poor.

The reverberation requirements for choral and orchestral music rest on a different principle. Why is the best reverberation for a large concert hall 2.3 seconds? The reason is, that where music is concerned the hall itself is not only an auditorium for the audience but also an instrument to the sound. That is to say, that the difference between open-air conditions and indoor conditions is greater for music than for the speaking voice. This can be also understood by keeping in mind the idea of sound as energy. The difference between a musical instrument of one kind and a musical instrument of another (e.g., between a horn and a violin) is twofold. Not only has one instrument a different tone or quality to another owing to its peculiar shape, size, and material, but also and for the same reasons one instrument is actually louder than another. That is to say, the sound energy that can be produced by human movement in one case can be greater than in another. And mere size does not play as large a part in the differentiation as shape, structure, and material. The variable factors are the capabilities of the walls, and enclosed air spaces of the instruments to reinforce the vibrations at their source. Now these factors making for loudness and quality of tone of sound vibrations are not confined to the effect on the sound of the individual instruments alone. The walls and air spaces of the auditorium also have an effect, not equal in degree certainly, but of the same kind.

The energy of the original sound can be considerably modified, either reinforced, damped, or changed in tone-colour by the energy-condition of the room. And we have seen that the reverberation is an index of the energy-condition of the room. So that reverberation means in the case of music a real modification of the sound, and a reverberation of 2.3 seconds,—that of the Gewandthaus at Leipzig, is usually taken as the most satisfactory modification for concert music. It is important to get more definite musical opinion on this point, but architects should know that the complaints on this score in concert rooms are usually complaints of deadness and dullness arising from insufficient reverberation. It is, I think, fairly established that without sufficient reverberation the tone of an orchestra of fine instruments such as the London Symphony is largely lost.

The demand in modern assembly halls for the maximum seating possible, together with the cutting down of cost, and therefore of cube and air volume, will lead to unsatisfactory results unless these principles are kept in view. The tendency now is to keep ceilings low, which is all in the right direction as far as conditions for the speaking voice are concerned, but when large and numerous galleries are provided the huge absorbing factor of the audience may easily reduce reverberation below the point satisfactory for concert music. Choral music can stand a longer reverberation than orchestral music, but should not for the sake of accurate rendering exceed 2.5 or 3 seconds.

But in all these considerations of requirements for good musical effects there is one factor of enormous importance that must be kept steadily in view, and that is the factor of resonance. Resonance is the term given to the capacity possessed by certain materials to reinforce a sound by means of sympathetic vibration.

Let us turn again to the case of the musical instrument. It is the different resonant qualities of wood, of metal, of an enclosed column of air, that distinguishes one instrument from another in addition to size and shape. It can readily be understood then that the presence or absence of a material like wood in an auditorium would have an influence, unequal in degree but the same in kind, on sound production. And it undoubtedly has such an influence. Also from the analogy with a musical instrument the resonant material must be near the source of sound to produce a distinguishing effect.

\* Conclusion of a Paper read before the Society of Architects.



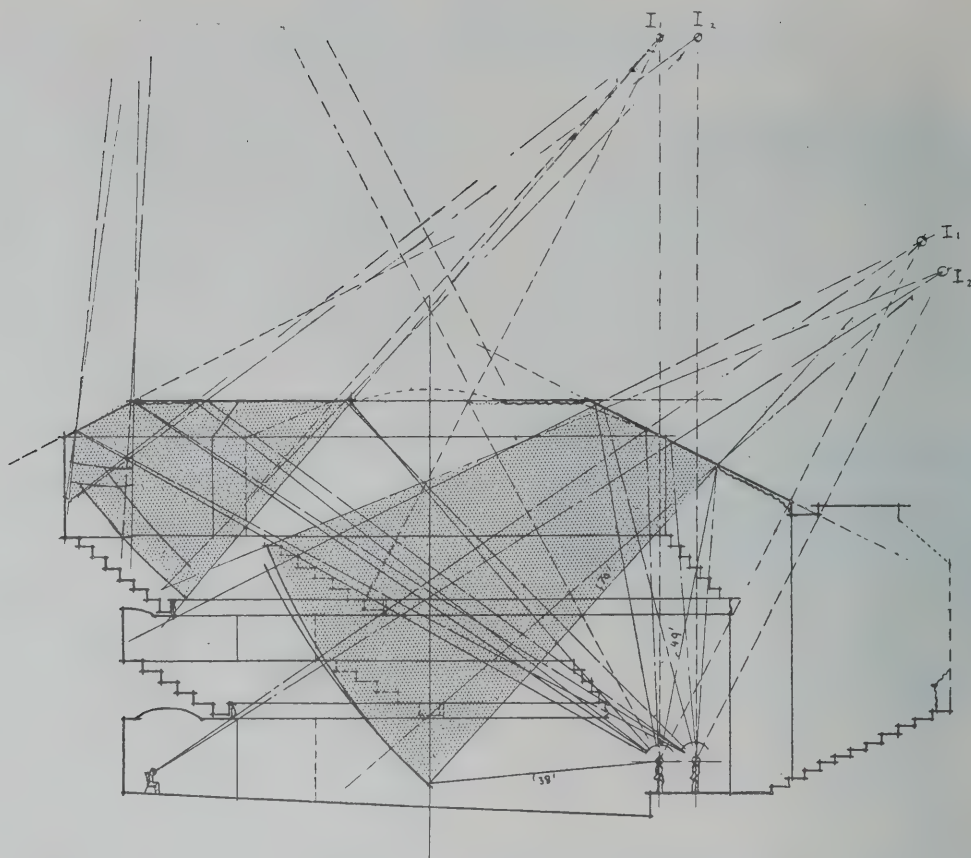


FIG. 2.—Speaking Voice. A Section showing Beams of Sound from useful overhead surfaces for two positions of a Speaker. Images of Source of Sound marked I.

On this principle therefore the value of wood panelling will be lost if it is placed in the neighbourhood of the audience. It should be placed near the orchestra and choir in a position of maximum concentration of sound. Then it will have a very real effect. The way a resonant material works is interesting and should be borne in mind in all acoustic designing. Consider a large panel, one of a series round a choir recess in a concert room. The resonant nature of wood is to respond by getting into vibration whenever a sound is produced in its neighbourhood near in pitch to a certain definite tone. At first its vibration will be small, and the energy it absorbs will be small. If the sound is maintained, however, the sympathetic vibrations of the panel will increase, and therefore the energy it absorbs will increase. All this time the panel is acting as an absorbent, and its value in the room is as an absorbent only. But presently, if the sound in its neighbourhood be sustained, a point will be reached when the energy absorbed by the panel is sufficient to overcome its resistance to movement as a whole at each vibration. Then the whole panel becomes a sounding-body like the sounding-board of a piano, and

itself a second source of sound so long as sufficient energy is supplied to it from the first source. If now the first source is stopped, the supply of energy will immediately drop below the point necessary to make the panel a sounding body, but it will continue to draw upon whatever energy is stored in the room, that is to say, it will immediately become an absorbent active against reverberation.

That is how wood panelling is well known as a reinforcer of sound, and yet at the same time is down on Sabine's schedule of absorbents as having a high average coefficient.

With regard to the definite tone to which wood panelling vibrates sympathetically it may be objected that it is not desirable to have one tone only reinforced and not others. This would be true if the sharpness of resonance was so great as to reinforce a certain note only. But the sounding-board of a piano should dispel any alarm on this point. Maximum resonance occurs of course not on a note but in a region of the scale. Special tests were made by Sabine on  $\frac{3}{4}$ -in. North Carolina pine on studding at 14-in. intervals. The maximum resonance was found in the lower but not in the

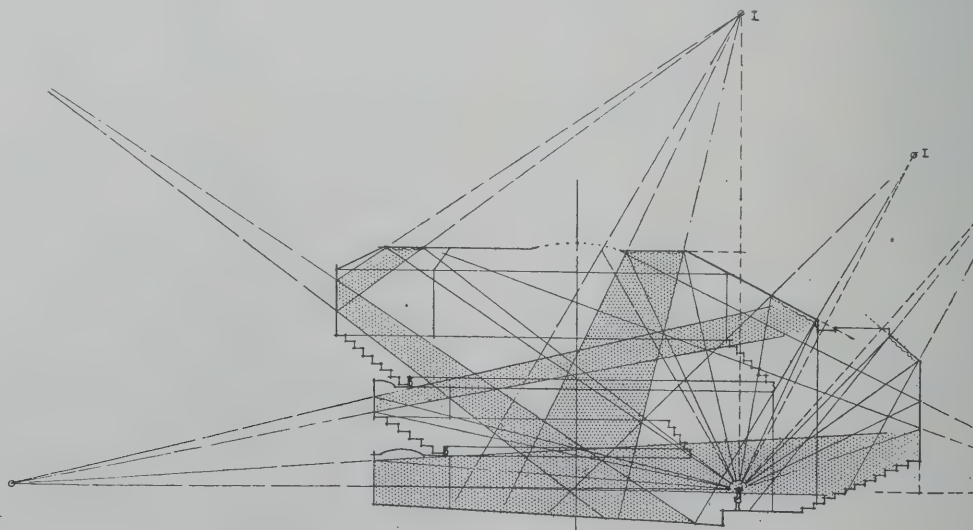


FIG. 3.—A Section showing Beams of Sound from mischievous surfaces which require to be eliminated by absorption or diffusion. Images of Sound Marked I.



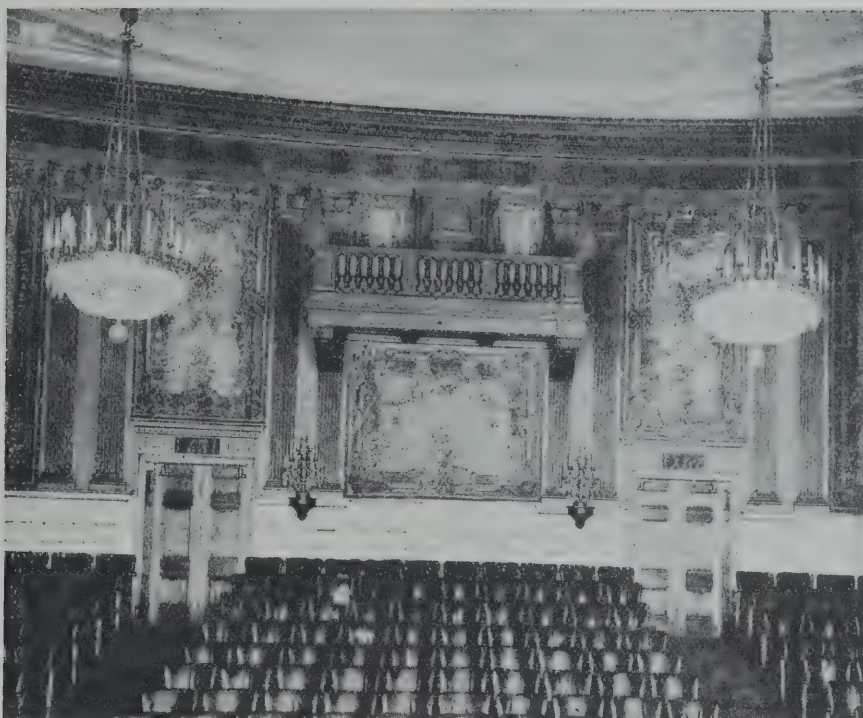


FIG. 4.—Little Theatre, New York. Example of Felt Panels placed on Rear Wall and covered with a Tapestry.

lowest part of the range. The position of this region of resonance is largely in the choice of the architect. It will be raised by increasing the thickness of the wood and lowered by diminishing it. It will be raised by diminishing the distance between the studding and lowered by increasing it. The best position for this maximum should be between C4 and C5, but as we get more light and more experiment on the subject I am convinced that the way to tackle the problem will be to have an arrangement of panelling the same as far as appearances go, but varying in thickness and in the intervals of the studs, thus providing resonance over a wide range of tones.

If bearing these principles in mind we now turn to Vitruvius's chapter on the acoustics of Greek theatres, Book V, chapters 3, 4, and 5, we can see quite plainly that the Greeks were masters of some such arrangement for providing a reinforcement of energy by means of resonance. Their auditoria, open to the sky and holding a maximum audience, must have had the very shortest réverbération, and therefore when we consider their size, must have been badly in need of such a reinforcement. They used, not wood, but enclosed volumes of air, for their resonators, and from what we know of their *echeia* or acoustic vases, these vases were placed not in the neighbourhood of the source of sound, but in three tiers under the seats of the audience in the semicycle itself.

In modern acoustic work enclosed volumes of air are used as resonators only when they can be brought in some sort of direct contact with the source of sound. Thus a six-inch air space below the floor boards of an orchestra pit or platform has been discovered to reinforce all tones equally, an eight-inch air space to reinforce tones in the middle register. This reinforcement is specially effective for 'cellos and double-basses that rest on the floor. It is also valuable for these two instruments, because both are liable to suffer loss of power in a crowded room.

With regard to the Greek *echeia* they were placed equidistant in a certain progression in pairs from the horns of the hemicycle inwards to the centre line. The first pair being placed at the extreme ends, the second pair next them on the inside, and so on to the seventh on the centre line. Each pair responded to a note, each note separated from the one on either side by an interval of a fourth. This scale was to be for the harmonic genus," but in large theatres was repeated with variations in two other tiers for the chromatic and the diatonic genus," Vitruvius's words, "By the adoption of this

plan the voice . . . striking the cavity of each vase will sound with increased clearness and harmony from its unison with one or other of them," seem to suggest that the actors intoned their lines, and that their tones would be sure to find reinforcement from one pair of vases or another.

Vitruvius's most significant remark to my mind is that to the effect that theatres constructed of wood and having wooden floors do not require the system of *echeia*, "but when theatres are constructed of solid materials that is of rubble, squared stone, or marble . . . it is necessary to build them according to the rules in question."

There is no doubt that when wood is present in large areas in an auditorium, not only is the reverberation usually short, but also, and in despite of that fact, the tone and power of instruments and voices is full and powerful. Examples are, Covent Garden Theatre, La Scala Opera House, Milan, and the central chorus and orchestra at the Crystal Palace. In my mind I have no doubt that the way to solve the problem of the necessary compromise in an auditorium is to reproduce good opera-house conditions, in other words, short reverberations and a large area of resonant material.

Resonant material then should be in the neighbourhood of the source of sound, absorbing material in the neighbourhood of the audience. But what about the common wall and ceiling areas in plaster, marble, or brick.

These surfaces absorb so small an amount of energy at each impact of a sound wave that it requires scores of impacts, that is to say scores of reflections backwards and forwards before energy is absorbed by their agency alone. Consider a room 40 feet square: sound travelling at 1,100 feet per second will be reflected backwards and forwards in it twenty-seven times in a second. If its walls are all hard plaster and its reverberation is when empty five seconds, a sound wave will travel 135 times to and fro before its energy is absorbed. But if the hard surfaces are inclined at such an angle that every sound wave will, in the course of one or two reflections, be directed to an absorbing surface, then we can understand that the inter-reflections and consequently the reverberations will be diminished. The inter-reflections specially requiring to be eliminated are those along the longer dimension of the room, so that the rear wall behind the audience is usually the most useful to render absorbent.

This directing of sound waves by means of the hard plaster surfaces, inevitable in any auditorium, is an important item in acoustic design. Obviously the placing



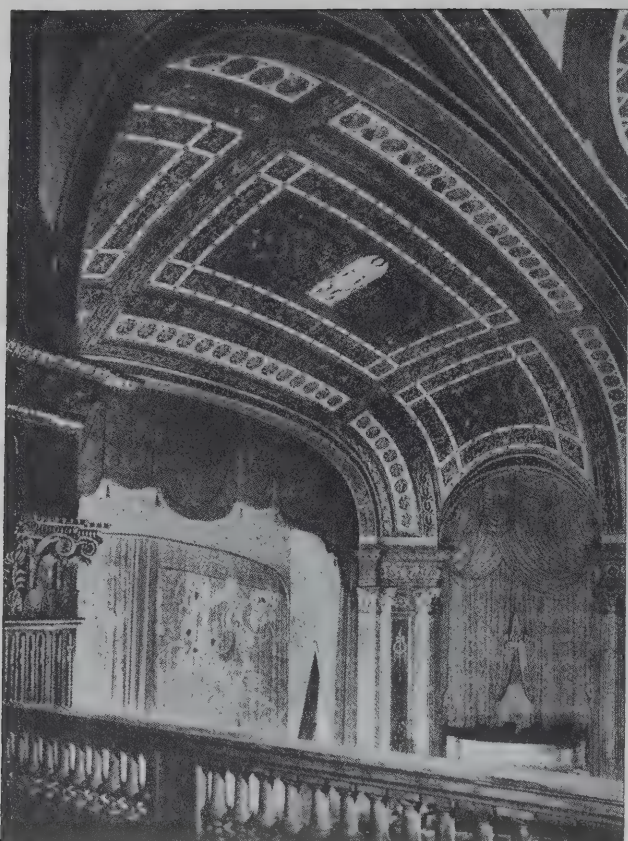


FIG. 5.—Capitol Theatre, New York. View of Proscenium and Sounding Board. Thomas W. LAMB, Architect

at a suitable angle of walls and ceiling surfaces is a matter for careful drawing out. Sound rays are reflected like light rays, and can be drawn out in the same way by setting out images of the source equidistant and opposite from the reflecting plane. But another object of the designing of reflecting surfaces is for the purpose of intensifying sound in the rear seats of an auditorium. If, in addition to the direct ray from a speaker's mouth to a listener in a rear seat, we can so arrange our reflecting surfaces that a reflected ray from the ceiling, one from a cove above the speaker's head, and one from each side wall (that is four additional reflected rays), shall converge upon that rear seat we shall have nearly as good audibility there as in a front seat.

Accurate designing on this principle, however, requires a fixed position for the speaker. The speaker or solo singer must stand on a rostrum or an area about six feet square marked out on the centre line of the platform. The most successful auditorium designed on this principle is the Hill Memorial Auditorium, University of Michigan, built primarily for the speaking voice, but designed to take a small choir also. Its volume is 800,000 cubic feet, audience 5,000, and reverberation 1.7 seconds, and when a speaker delivers himself from the rostrum position every member of the audience is said on expert authority to be able to hear his slightest inflection.

The design of reflecting surfaces should be governed by a simple rule derived from the known velocity of sound. If any seat in the auditorium is taken for the test and the speaker or source of sound is marked on the section or plan, then a straight line joining speaker and listener represents the direct sound path. But obviously there will be other sound paths to that seat reflected from various surfaces. Some of these reflected paths will be useful, as we have seen, and will contribute to the audibility, but in a large auditorium there may be other reflected paths which will be mischievous. All reflected paths exceed the direct path in length, but no reflected path should exceed the direct path by more than seventy or eighty feet. The reason is that too great a discrepancy in length between direct and reflected, means a time interval between the perception of the sound con-

veyed along the one path and the other. The shortest time interval detected by the human ear is one-fifteenth of a second, and in that time sound will travel at normal temperature between seventy and eighty feet. If the reflected path is so long in comparison with the direct path that more than that interval elapses, say one-quarter second or one-half second, then a marked redundancy is noticeable, and in extreme cases an echo. See Fig. 1 illustrating experiments at Illinois University.

The place for installing absorbing material when required to remedy reverberation is upon mischievous reflecting surfaces. Figures 2 and 3 are diagrams representing respectively beams of sound from useful and mischievous reflecting surfaces, caused by a speaker standing in a rostrum position. The beams of sound in Fig. 3 would require to be eliminated. But it is possible to eliminate them by roughening them by means of ornament and relief. A surface thus roughened will diffuse sound rays somewhat in the manner in which a white surface diffuses light rays. This practice is a tradition in theatre buildings, and certainly minimises the risks of echoes. In optics, for a surface to diffuse light instead of reflecting it, the depth of the indentations must be at least one-tenth of the wave length. For light this is not a difficult matter, seeing that the wave length of white light is one-fifty-thousandth of an inch. In sound, however, the wave length of the speaking voice is slightly over three feet, so that on the same principle the depth of the reliefs and ornament should be at least  $3\frac{1}{2}$  or 4 inches. Wave lengths for music, however, can be anything up to 16 feet, so that when surfaces are definitely causing echoes it is well to eliminate them by covering them with felt.

Felt, when used as an absorbent, should be laid on battens, so that an air-space is left between it and the wall; it should be covered with a cloth, stained, not painted, or a tapestry, see Fig. 4 illustrating the rear wall of the Little Theatre, N.Y. The practical advantage in having a certain area of fixed absorbing material like felt is that you are more independent of your audience. A hall relying solely on audience for reducing reverberation may cause serious complaints if only half the audience is present, or on occasions such as rehearsals when no audience is present.

The results of acoustic design in the matter of reflecting surfaces is noticeable in America in the shapes of many modern theatres, where the splay is used both on side walls and overhead, see Fig. 5 illustrating the proscenium of the Capitol Theatre, N.Y. The ceiling, too, appears to be getting lower. But my own opinion is that in all such questions the architect is more likely to be successful if he understands the principles of his subject than if he takes the latest technical watchword and applies it without understanding it. There is no doubt that an architect ought to ensure against an excess of reverberation in sound for his building, exactly as seriously as he would ensure an adequate supply of light, if his building required light. But he should be on his guard against the indiscriminate introduction of absorbing materials and should remember that a few square yards in a strategic position may be as valuable as twice the amount in a bad position.

Before bringing this paper to an end there is one rather special type of auditorium I should like to speak about, because I have been recently studying it. It is the auditorium used for a large committee room, debating hall, or legislative chamber. Of course, if the rostrum system is used, that is if each member comes to a central place to speak, the auditorium comes under the category we have already discussed. If, however, it is a hall in which at any moment a speaker may rise from any seat, and address the assembly, that is to say if, at any moment, the relative position of speaker and audience may change, then the requirements must be different. It must happen that when a speaker rises in front benches a large proportion of his audience is behind his back, and this difficulty will not be overcome by choosing the semi-



circular plan, so popular for this kind of auditorium. Yet for this very reason some sort of a reflecting surface is required, because the direct ray behind a speaker's back is, roughly, only half the intensity of the direct ray in front of him, so that persons sitting behind a speaker will specially require reflected rays to reinforce the sound. Is there any reflecting surface that could be arranged which would be common to all positions in the hall, for front and back benches and chairmen alike? Obviously there is one very simple one: a flat ceiling at not more than thirty-five feet above the heads of members. It would require to be flat and unbroken over a certain minimum area ascertainable by diagrams, and could be ornamented round the walls. Such a ceiling exists in the large committee room (not the board-room) of the Metropolitan Water Board new offices, and I am told the room is notably good for committee purposes. A ceiling is an excellent reflecting surface to use, because of the efficiency of the sound-rays that go upwards from a speaker's mouth, avoiding obstacles like neighbours' coats and persons. Rays that go to the ceiling usually have a freer path, especially near the source, than rays that go to side walls.

But large committee rooms, especially legislative chambers, often have to be of a monumental height, far more than 35 feet, with galleries for distinguished strangers, &c., &c., quite putting the ceiling as a reflector out of the question. What must be done, then? Reverberation must be kept down at all costs, not only for the sake of distinct speaking, but because in legislative assemblies there are always persons moving to their seats or moving out, always a slight noise going on, which is magnified by reverberation and can become a serious annoyance. For this reason floor and gangways should be carpeted. It is important that, in any case, a speaker, without too great an exertion, may be able to make himself heard above this slight murmur of noise. Well, if not the ceiling, it may be possible to clear some wall, or portion of a wall normal to all positions of members, and use it as a reflector. A case came under my notice recently of a large parliament hall semi-circular on plan and considerably more than 35 feet high. I found that a wooden screen about 15 feet high along the diameter of the semi-circle would provide a reflector from every member standing to all other members sitting, and also from every member standing to a large part of the galleries round the semi-circumference.

A common trick in these halls is to hang a heavy curtain behind the chairman for the sake of effect. This should be removed and employed elsewhere. My own experience has been that remedial measures are more frequently demanded in this type of auditorium than in any other. Our hope must be, for this and for every other type of auditorium, that architects will no longer build them without any reference to their first requirements.

## Correspondence.

### Taste in Architecture.

To the Editor of THE ARCHITECT.

SIR,—The writer of a recent article in "The Times" on rural beauty finds a difficulty in seeing what steps might be taken to prevent the erection of tasteless villas, &c., in view of the opinion that the architecture of villas and cottages is a matter of taste, and the fact that local authorities have no control over ugly designs, but only over other questions affecting building, which can be dealt with through the by-laws.

I suggest the remedy is for building by-laws to be amended and simplified to cover (a) sanitary and hygienic requirements; (b) the prevention of and escape from fire; (c) to ensure strength and stability; and (d) to limit the approval of building plans to those prepared by qualified architects.

The public are guarded to some extent from faulty construction and sanitation by the existing regulations, and they are entitled to be protected also from the equally evil effects of defective planning and design.

As usual we must look abroad for a precedent, and I draw attention to a by-law recently passed by the Johannes-

burg Town Council which provides that all plans approved for buildings exceeding two hundred pounds in cost must be signed by a qualified architect. I believe a similar by-law has been in force for some years in Pretoria with beneficial results, and here it may be noted that the statutory registration of architects is in force in the Transvaal and therefore there is not the same difficulty there which exists here in regard to the legal definition of a qualified architect.

I understand the Scapa Society is promoting a Bill to give local authorities powers to veto the display of advertisements calculated to disfigure the landscape, and I think architects will agree that these powers might be extended to buildings with equal propriety, and, if so, why not go a step further and ensure that in the public interest buildings should be erected from the plans and designs of qualified architects, who would incidentally have some personal interest in seeing that their creations were not subsequently defaced.—Yours, &c.,

C. MCARTHUR BUTLER, Secretary.

The Society of Architects, 28 Bedford Square, W.C. 1.

### Building Contracts.

To the Editor of THE ARCHITECT.

SIR,—The Council of the Royal Institute of British Architects have had under consideration the Form of Contract No. 3 which is issued by the Ministry of Health. My Council consider that this form leaves too much in the hands of the contractor, who is protected at every turn and has little responsibility. In my Council's opinion, the ordinary lump-sum contract is greatly to be preferred both from the employer's point of view and in the interests of the ratepayer.—Yours, &c.,

IAN MACALISTER,

Royal Institute of British Architects, Secretary.  
9 Conduit Street, W. 1.

### Frewen Cavity Bricks.

To the Editor of THE ARCHITECT.

SIR,—In your issue of the 22nd inst., dealing with the Building Exhibition, under the Tourba Construction Company, Ltd. (Stand 168, Row J), "Frewen" cavity bricks, you mention concrete cavity bricks. May I point out to you that we do not claim any relation with concrete in the "Frewen" cavity brick? Our brick is made out of Leicestershire clay, and not concrete. I shall esteem it a favour if you will correct this in your next issue, and save a lot of misunderstanding.—Yours, &c.,

FRANK WALKER,

per pro Tourba Construction Co., Ltd.

42, 43, 44, and 60 Terminus Chambers,  
6 Holborn Viaduct, E.C. 1.

### Falling Prices.

To the Editor of THE ARCHITECT.

SIR,—As might be expected, after building costs have reached their dizzy heights, the inevitable fall in costs has set in, and this position has brought into existence very chaotic results in the tender lists.

There are but very few of those entitled from a keen knowledge of the subject to write on the matter but will readily concede the fact that tendering, even in normal stable times, requires a very wide experience and detailed knowledge of the analysis of prices, in order to arrive at the correct current price on a changing market.

It is obvious that better-known firms are able to command the expert service required in this direction; but a reference to many of the published tender results will offer direct evidence that many of the small firms, not having that expert service, are putting in prices to which there can be only one meaning, and a meaning that was all too apparent when the building trade had the doubtful distinction of heading the bankruptcy lists.

That there is a distinct fall in costs of material, and, to some lesser extent, an improvement in output, is evident.

In view of the enormous areas of building work that will assuredly follow the fall in costs, architects, having reference to the depleted ranks in certain necessary crafts, would be well advised not to increase the difficulties by not launching the boat until the tide has receded, but to launch the boat on the turn of the tide, and not to be misled by those fictitious results which are, after all, but the result of ignorance and a curse to the building industry.

Yours, &c.,

For E. A. ROOME & Co., LTD.,

F. J. GAYER, Managing Director.

Crown Works, Urswick Road, Hackney, E. 9.



## The Architects' Welcome Club.

ON Friday, the 22nd inst., a dinner arranged by the Architects' Welcome Club was held at the Pillar Hall, Olympia. The chairman was Mr. John W. Simpson, President of the Royal Institute of British Architects. Amongst those seated at the chairman's table were Sir Banister F. and Lady Fletcher, Sir Charles T. and Lady Ruthen, Mr. and Mrs. Greville Montgomery, Sir Ambrose Poynter, Bart., Sir Philip Pilditch, M.P., Mr. W. J. Minn (Master of the Worshipful Company of Carpenters), Mr. J. W. Lorden, M.P., Mr. G. M. Burt (President of the London Master Builders' Association), Mr. W. R. Colton, R.A., Mr. Walter Lawrence (President of the Quantity Surveyors' Association), Mr. Arthur Keen, Lieut.-Col. J. B. B. Carslake (chairman of the Metropolitan Water Board), Mr. E. Fiander Etchells (President of the Concrete Institute), the Mayor of Kensington, Mr. A. P. Forsdike (President of the National Federation of Building Trades' Employers), Mr. George Hicks (General Secretary, Amalgamated Union of Building Trade Workers of Great Britain and Ireland), Mr. and Mrs. E. J. Partridge, Mr. H. C. Portsmouth (President, South Wales Institute), and Mr. J. Seagram Richardson (President of the Auctioneers' and Estate Agents' Institute).

After the loyal toasts had been honoured, Mr. John W. Simpson proposed "The Building Exhibition." A more popular toast, he said, he could not conceive. They had to congratulate Mr. H. Greville Montgomery and his brother on the extraordinary success which had attended the present Building Exhibition. It might safely be described as the best of the series which had succeeded one another during the past twenty-five years or so. Doubtless they knew that His Majesty the King, always solicitous and attentive to the interests and welfare of every section of his subjects, had paid the Exhibition a long visit examining with care the various stands. Both he and her Majesty the Queen had expressed their admiration, approval, and satisfaction with the exhibition. Such marks as those of the active personal sympathy of the Sovereign with our interests were most beneficial to the stability of the kingdom. Despite trying times, despite mischievous and dangerous propaganda, the people of this country remain steadily loyal. One issue from a war which had convulsed the whole world was that our King was more firmly seated on his throne than before and even more secure in the affections of his people. It could hardly be said that the prosperity of the building industry had been yet restored; but it showed clear signs of recovery. There was a better output by the operatives—and that increased output was at once reflected by lower prices. All efforts to revive the building industry could be of little use while the east wind of high costs shrivels up all the good intentions of building owners. The men who promote strikes fail to recognise their invariable futility and that a strike injures first and foremost those who use it. Every strike leads to unemployment—the very thing to avoid which the men are striking. Coal was the chief source of our wealth and welfare. The public wanted that strike settled. Among the ways of improving the building industry he placed Building Exhibitions very high. The first reason was because the general public was extremely interested in building and the materials and processes of building and in its general details. Building exhibitions fostered and encouraged a healthy curiosity of the public as to processes. The second reason was that publicity was essential to commerce—without publicity commerce would disappear. There was no publicity like a well-organised exhibition. Before concluding he would congratulate his fellow-president, Sir Charles Ruthen, and he congratulated the country also, on his appointment as Director-General of Housing; he was sure that appointment would be very fruitful in benefits not only to the pockets of architects but also to the pockets of the taxpayer. Finally, he would express a hope that future exhibitions would form the occasion of many such pleasing reunions as they were enjoying that night.

Mr. H. Greville Montgomery in responding to the toast remarked that the King showed very fine business capacity, a capacity which he would like to see imitated by some of his architect friends. What a good idea it would be if the Architectural Association would include a business curriculum at Bedford Square! His own experience was that architects sometimes did not answer letters; they seemed ignorant of the meaning of R.S.V.P. He was only too glad to think that the Building Exhibition had done anything to bring about the unification of the architectural profession. As to the Exhibition itself, neither his brother nor himself knew the word "finality"; they went on from year to year hoping the next would be better than any that had gone before. He trusted they would agree that the present exhibition was the best and biggest of the bunch.

Sir Charles T. Ruthen (President of the Society of Architects) proposed the toast "Our Visitors." Mr. Simpson and himself had worked very harmoniously together, and he could see no reason why they and the members of the architectural profession who followed should not continue to work harmoniously together. If success did not result it would not be their fault. The building industry was one of the greatest in this country and in the world. If the country had only realised its importance with regard to industrial development we would have been spared much of the unrest existing now. It was singularly unfortunate, though singularly British, that one of the greatest problems should be left to come after one of the greatest upheavals of the world. But he believed they would come out of all the troubles, as the country always came out of its troubles, standing full upon their feet and with their heads erect. They would see this country in a good and sound state and the industrial classes happy and comfortable. They hoped to get the industry once again going.

Mr. A. P. Forsdike (President of the National Federation of Building Trades' Employers) in responding on behalf of the visitors spoke of the very close association existing between those who were practically responsible for the trade and those whose guests they were that night. A great change had come over the industry. Builders had been able to get into much closer relationship with architects and quantity surveyors than they had ever been before. The building industry could not be separated from architecture and the best results could only be obtained by real co-operation between all the parts. He very much appreciated the close relationship with the various societies of architects during the time he had held office. There was no reason why that should not continue. As time went on he hoped it would grow closer still.

Mr. J. W. Lorden, M.P., proposed the toast of "Our Chairman." Architects to-day, he said, could do as good work as they had ever done; but they are handicapped by cost. He was glad to hear the Exhibition had been, despite these difficult times, such a huge success. Architects and builders must pull together, they were supplementary one to another. Architects were the brains and builders were the hands to carry out work. But they were essential one to another.

After the company had sung "For he's a jolly good fellow" Mr. John W. Simpson briefly responded.

During the evening a programme of music was gone through.

PLANS have been accepted for a cenotaph for Gainsborough, and the necessary money has been raised. Mr. T. Tatam is the architect, and a suitable site has been chosen in the grounds of the Old Hall.

THE second visit of the series now being organised by the R.I.B.A. Art Standing Committee will take place on Saturday, May 7, at 2.30 p.m., when Mr. Ralph Knott, the Architect to the new London County Hall, has kindly arranged to conduct a party of members and licentiates over the buildings now in course of erection. Members and licentiates wishing to join the party should apply to the Secretary R.I.B.A. for the necessary ticket of admission not later than Tuesday, May 3.



# LLOYDS BANK LIMITED.



Chairman:  
Sir RICHARD V. VASSAR-SMITH, Bart.

Deputy-Chairman:  
J. W. BEAUMONT PEASE.

HEAD OFFICE: 71, LOMBARD STREET, E.C. 3.

CAPITAL SUBSCRIBED £70,688,980

CAPITAL PAID UP - 14,137,796

RESERVE FUND - 10,000,000

DEPOSITS, &c. - 346,397,553

ADVANCES, &c. - 151,079,173

THIS BANK HAS OVER 1,500 OFFICES  
IN ENGLAND AND WALES.

Colonial and Foreign Department:  
17, CORNHILL, LONDON, E.C. 3.

AFFILIATED BANKS:  
THE NATIONAL BANK OF SCOTLAND LIMITED.  
LONDON AND RIVER PLATE BANK, LIMITED.

AUXILIARY:  
LLOYDS AND NATIONAL PROVINCIAL FOREIGN BANK LIMITED.

## “Bitumastic”

Regd Trade Mark

### Prevents Rust

and so lengthens the life of Corrugated Iron, Iron Railings, Steel and Iron Structures, etc. Renders Concrete waterproof and preserves wood.

It lasts longer, covers a greater area, and costs less than lead paints. Send a p.c. for full details.

**WAILES DOVE BITUMASTIC LTD.,**  
Newcastle-on-Tyne, London, Glasgow, Liverpool, Leeds, Cardiff, Hull, Manchester, Birmingham, Lowestoft, Dublin, etc.

Telephones in every office. Telegrams—"BITUMASTIC."

# Bell's Poilite

A "Poilite" roof weighs 50% less than a roof of natural slates.

A "Poilite" roof is extremely strong, durable, fire-resisting, weatherproof and yet weighs 50% less than a roof of Welsh natural slates. In these days of high transport costs this is a factor of great importance. A proportionately lighter understructure is also rendered possible by the use of "Poilite" tiles, thus promoting economy in building construction.

Bell's "Poilite" Standard Tiles are the result of many years practical experience in adapting Asbestos Fibre combined with the Best London Portland Cement to the needs of the Building World.

**BELL'S UNITED ASBESTOS Co. Ltd.,**

Pioneers of the World's Asbestos Industry. Est. 1871.  
B969 SOUTHWARK STREET LONDON, S.E. 1. ☎

Poilite



## Electric Lighting in Schools.

THE provision of correct illumination in schools is of vital importance from both the individual and the national standpoints. It is estimated that twenty-two per cent. of London children of school age have defective vision, and whilst it is not suggested that all, or even the majority of these children owe their infirmity directly to bad school lighting there is little doubt that poor lighting aggravates the trouble and hinders cure.

It is not intended to treat of natural lighting in this article; this subject being more thoroughly understood and appreciated than artificial illumination. The modern tendency to multiply the number of continuation schools and technical classes, most of which hold evening sessions, accentuates the necessity of a more general realisation and application of the principles of scientific artificial illumination.

In the dark ages of the past, lighting installations were planned on the most casual lines, lamps being spaced and suspended with utter disregard to such important considerations as uniformity of illumination, the prevention of glare, and the elimination of inconvenient shadows.

The only standard for the measurement of light was the candle power of the lamp, which, indicating the intensity of the rays in one specific direction only, was no true guide to the true illuminating value of the lamp. Moreover, very few fittings of really good design, based on correct scientific principles, were available. It is therefore not surprising that in the past, the artificial lighting of schools left much to be desired.

During the past ten years, illuminating engineering has advanced from a matter of mere rule-of-thumb, and has become an exact science. Light is now measured in terms of the total luminous flux of the lamp by a unit known as the lumen. The actual intensity of illumination produced on the working plane—desk, blackboard or table—is measured in foot candles. Both these units are definite derived units bearing a simple relation to each other, namely, that one lumen falling on an area of one square foot illuminates it with an intensity of one foot candle. The design of fixtures has also received a great impetus. Correctly designed units of known characteristics are now available, and many forms of illuminating glassware have been produced as the result of much careful experiment and scientific research.

Armed, therefore, with his facts and formulæ, and provided with well-designed fixtures suitable for all types of service, the illuminating engineer is able to plan installations which will produce pre-determined results, and to avoid the mistakes and troubles inseparable from haphazard methods.

A great deal of research has been carried out to determine the desirable intensities of illumination which should be allowed in the various departments of educational establishments. The minimum values recommended by a Committee of the Illuminating Engineering Society are given below:—

Position of Work.	Minimum Intensity in Foot Candles.
Desk work—reading and writing ... ..	2
Art classrooms, drawing offices, sewing classes, and workshops ... ..	4
Assembly halls ... ..	1

Extra illumination should be provided for blackboards and it is advisable to allow a somewhat higher intensity than those scheduled, as even when the lamps and fittings are cleaned at regular and frequent intervals, the accumulation of dust on the reflecting surfaces very greatly reduces the light.

The question of glare should receive the most careful attention. All lights should be suspended well out of the normal field of vision. The Committee mentioned above recommend that no unshielded light should be included in the solid angle subtended at the eye by the blackboard, and a space of two feet above it.

There are three general types of electric light fixtures, all of which, under suitable conditions, can be used for

school lighting. Direct type fittings consist of metal or glassware reflectors placed above the lamps. They are only suitable for use in situations where considerable head room is available, and where a number of points are to be installed in one room. Otherwise, the somewhat hard shadows to which they give rise are apt to be inconvenient. Unless their positions are carefully adjusted, also, there is a risk of shiny reflection from blackboard, pictures, and other glossy surfaces.

The indirect fitting, consisting of an opaque bowl suspended beneath the lamp, has none of the disadvantages of the direct type reflectors; with these fixtures the whole of the light is directed on to the ceiling, whence it is reflected downward. Perfect diffusion, absence of glare, and almost shadowless illumination are characteristics of the indirect system, but these results are only obtained at a considerable sacrifice of physical efficiency; that is to say, for a given lighting effect, the current consumption would be nearly double that necessary for similar illumination with direct type units.

The most generally satisfactory system for school lighting where a suspension of height of at least nine feet is available, is the semi-indirect system. Semi-indirect fittings have a translucent bowl suspended beneath the lamp. Only a portion of the light is transmitted directly by the bowl, the remainder being reflected upwards to the ceiling and thence directed downwards. Of the many translucent media for use in these fittings, three forms produced by the General Electric Co., Ltd., Magnet House, Kingsway, W.C. 2, are worthy of note. "Superlux" is a white glassware with an "eggshell" finish. It combines good diffusing and reflecting properties with a low absorption factor. "Equiluxo" glassware is a milk-white glass of uniform density, which transmits a perfectly diffused light. Both these types of glassware are supplied in the form of bowls, and also as direct type reflectors for use with "Osram," Vacuum and Gasfilled lamps. A useful all-glass semi-indirect unit with top reflector, known as the "Doriclite" unit, has recently been introduced. This fitting is made entirely of "Equiluxo" glassware, and is designed for use with "Osram" gasfilled lamps to give the advantages of semi-indirect lighting in lofty rooms or where a good white ceiling is not available for reflecting purposes.

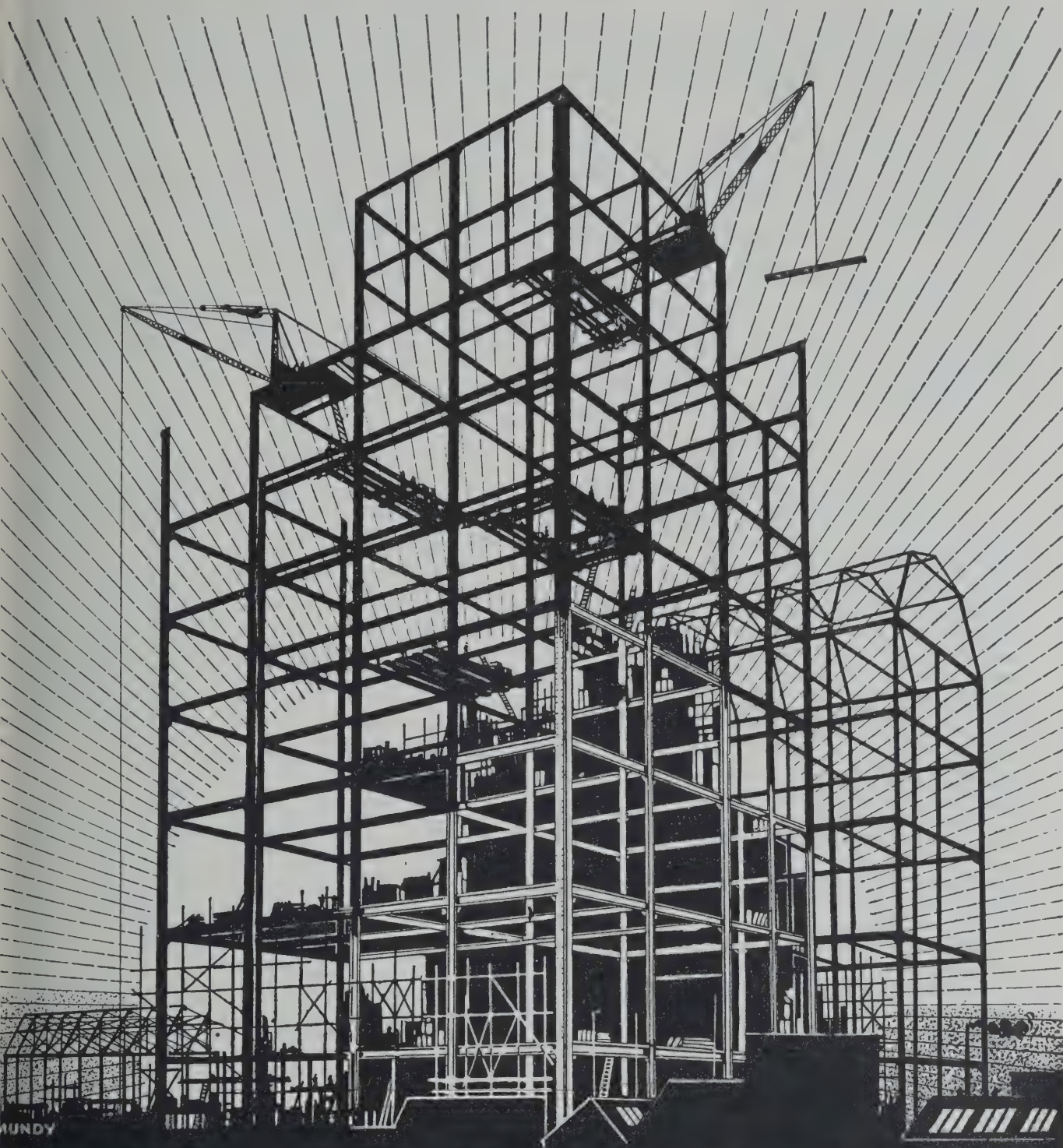
Another type of glassware is "Verilux," a compound glass consisting of three layers, one of clear glass, the second of opal glass to diffuse the light, and a third stratum of blue-tinted glass, which filters out the excess of red and yellow rays, leaving a resultant light having a composition very close to daylight. Where work on coloured material has to be done or where artificial light has to be used for long periods, "Verilux" reduces eye fatigue.

We understand that the General Electric Co., Ltd., being large manufacturers of electric lighting equipment do not, of course, carry out installation work, but their illuminating engineering department will willingly give advice to those having a direct interest in school lighting.

THE Government Training Grants Scheme for ex-officers and men of similar educational qualifications has undoubtedly proved of great value. Statistical information compiled by the Appointments Department of the Ministry of Labour, of recent successes of ex-Service candidates trained under the auspices of that Department, shows that the candidates form a very considerable proportion of the number who actually passed. Nine have passed examinations of the Royal Institute of British Architects, and twenty-one the Institution of Civil Engineers (Associateship).

MR. W. R. DAVIDGE, F.S.I., A.R.I.B.A., late Housings Commissioner for the London Area, has been on a mission to India to advise the Government on the town planning and development of Bombay, and returned to England on the 11th instant after an absence of four months. Mr. Davidge has resigned his official appointments in London under the Ministry of Health and London County Council, and has removed his offices to 27 Abingdon Street, Westminster, where he is taking up town planning and general consulting work.





# REDPATH BROWN & CO. LTD.

## CONSTRUCTIONAL ENGINEERS

### WORKS AND STOCKYARDS

LONDON  
Riverside Works,  
East Greenwich SE.

MANCHESTER  
Trafford Park.

BIRMINGHAM  
Office: 47, Temple Row.

EDINBURGH  
St. Andrew Steel Works.

NEWCASTLE-ON-TYNE  
Milburn House.

GLASGOW  
Pinkston.  
Office 19, Waterloo St.

London City Office:- 3, LAURENCE POUNTNEY HILL E.C.4



## Royal Institute of British Architects.

THE following notes are taken from the minutes of a Council Meeting on April 18:—

*Annual Exhibition of Architecture.*—A Joint Committee, representing the Council and the four Standing Committees, has been appointed to organise the first of the Annual Exhibitions of Architecture which will be held in the R.I.B.A. Galleries.

*Garden Party.*—A Garden Party has been arranged for June 28 in the gardens of the Zoological Society.

*Proposed Charter for the Incorporation of Scottish Architects.*—The Royal Institute Council have informed the Council of the Institute of Scottish Architects that they will not oppose the application for a Royal Charter for the new Incorporation of Scottish Architects.

*Conditions of Contract.*—The Surveyors' Institution, the National Federation of Building Trades' Employers, and the Society of Architects will be invited to appoint representatives to attend a Conference on the subject of Conditions of Contract.

*The Ministry of Health's Contract No. 3.*—A public statement on this form of contract is to be issued for the guidance of architects and public authorities.

## The London and Lancashire Insurance Co., Limited.

THE fifty-ninth annual meeting of the above company was held at Liverpool on April 27.

From the report it appears that fire premiums are £3,668,249, the marine premiums are £2,669,515, and the accident premiums are £1,746,672 making the aggregate premiums for the year £8,084,436 being an increase of £1,325,376 over 1919.

The underwriting surplus, after providing for all expenses, including the usual increase of forty per cent. in the reserves for unexpired risks, amounts to £1,036,508. From this must be further deducted British taxation, viz., income tax on profits, excess profits duty and Corporation tax, together £331,100.

The net interest on investments amounts to £315,239. After increasing the additional reserve in the fire revenue account by £200,000, the Directors resolved to write off the Company's investments, to cover depreciation, the sum of £500,000, and to transfer to the staff pension fund the sum of £20,000.

The Directors, moreover, propose to pay, on the 2nd proximo, a dividend of 6s. per share, less income tax, making, with the interim dividend already paid, a total distribution for the year of 12s. per share, less income tax, or £301,321.

The net result, therefore, of operations for 1920, after making every necessary provision for liabilities, taxation and depreciation, is to add to surplus reserve funds the sum of £216,747. The reserve funds of the Company now amount to £6,464,329.

## Progress of Housing Schemes.

NEW Housing Schemes submitted to the Ministry during the week ended April 15 numbered twenty-four bringing the total number of schemes submitted to 11,496. The schemes approved now number 9,045 and comprise about 58,593 acres.

Seventeen lay-out schemes were submitted and seventeen were approved during the week, bringing the total number of lay-outs submitted to 7,523 and number approved to 6,981.

House plans representing 597 houses were submitted and plans for 550 houses approved. The total number of houses represented in all plans now submitted is 295,346 and in the plans approved 276,410.

During the week tenders were submitted for 2,231 houses. Tenders for 694 were approved, bringing the total number of houses in tenders submitted to 191,288, and in tenders approved to 176,909. Contracts have been signed for 158,305 houses.

## General.

THE death took place last week at Holmfirth, of Mr. Joshua Barrowclough, of the firm of J. Barrowclough & Son, architects and surveyors, in his eighty-second year.

MR. DENDY WATNEY, of the firm of Messrs. Danie Watney & Sons, 4A Frederick's Place, E.C., has been appointed Chairman of the Rents Tribunal under the Local Authorities (Assisted Housing Schemes) Regulations, 1919.

GLASGOW Corporation have approved of the recommendation of the Parks Committee to erect the city Cenotaph on the site occupied by the Gladstone statue, in front of the City Chambers.

THE Darlington Housing Committee have, subject to the Ministry of Health, accepted tenders for twenty-four blocks of four houses to be erected at Cockerton. The contracting firm is a local one, and the price per house is considerably less than that at which previous tenders have been let.

THE Ministry of Health has decided that the Heston and Isleworth Council shall not build more than 100 additional houses under the local scheme. At the present time 350 houses are practically completed or in course of erection. The present additional sanction makes a total of 450 houses as compared with the original scheme for 1,004 and with 1,500 first suggested.

THE Birmingham Housing and Estates Committee have decided to place the development of three estates in the hands of a panel of architects—mainly ex-Service men. This is the outcome of long-continued efforts by the Birmingham Architectural Association, assisted by the Department to get a panel of architects recognised for housing work in the district instead of all being handed over to the staffs of the city authorities.

SEVENTEEN hundred municipal houses have now been commenced in Birmingham. Of this number, 1,328 have been roofed in, and 699 are completed. Comparison with the March figures shows that the number of houses completed has increased by eighty-seven in a month. The Housing and Estates Committee last week decided to advertise for tenders for fifty-two houses on the Farcroft estate, Handsworth: twenty-two at Northlands Road, King's Heath, twenty-five at Mossfield Road, King's Heath; ten at Palace Road, Bordesley Green; twenty-eight at Uplands Road and Avenue Road, Handsworth; twenty-four at Holly Lane, Erdington and sixteen at Shortheath Road, Erdington.

ONE hundred and sixty-two valid applications have been received by the Cardiff Mental Hospital Committee for the position of clerk of works at the hospital. Altogether there were 249 applications for forms. The Committee decided to place five applicants on the short list, i.e.: Mr. G. H. Sleeman, clerk of works, Torquay Corporation; Mr. T. G. Thomas, builders' foreman, Exeter; Mr. W. Y. Johnson, clerk of works, Wootton Bassett; Mr. G. E. Brand, clerk of works, St. Leonards-on-Sea; and Lieutenant and Quartermaster R. H. Smith, R.E., Dublin. Each of these will be asked to appear before the Committee. The appointment carries with it a salary of £350 a year, with emoluments of £30 annually.

## Trade Notes.

STIRLING Town Council have adopted a scheme for the repair of the St. Ninians road with asphalt surfacing at cost of £21,000. The work is to be executed by the Limerick and Trinidad Asphalt Co., Ltd., Westminster.

PRINCESS BEATRICE, who is the Governor of the Isle of Wight, visited Messrs. Gillett & Johnston's bell foundry, Croydon, on the 22nd inst. in order to see the casting of four out of eight bells for Carisbrooke Parish Church, Isle of Wight. The old bells of Carisbrooke had been melted down and the metal used for the new ones. The inscriptions on the bells have been transferred to the new ones, including a couplet:—"To honour both of God and King; our voice shall in concert ring." To the old inscriptions are to be added the words, "Thanks be to God, who giveth us this victory."

THE annual staff dinner of the well-known marble firm Messrs. Percy C. Webb, Ltd., was held at the Villa Vile Restaurant in Gerrard Street, W. Some thirty guests were present and included representatives of the firm's various interests in this country and in Italy. The chair was occupied by the managing director, Mr. Percy C. Webb, who was supported by Mr. John Bradford, a co-director, and the managers of the different departments. Mr. Webb, responding to the toast of his health, referred to the success of the past two years' trading, and said a great part of his satisfaction in that success had been the opportunity it gave for permitting the staff to share in the prosperity.



## CONTENTS.

Architecture at the Royal Academy . . . . .	PAGE 323	"The Architect" Fifty Years Ago . . . . .	PAGE 329
Illustrations . . . . .	325	Exhibition Stalls (Illustrated) . . . . .	330
Notes and Comments . . . . .	325	The Architects' Benevolent Society . . . . .	331
Painting at the Royal Academy . . . . .	326	A Theory of Beauty . . . . .	332
London Art Galleries . . . . .	327	Forthcoming Events . . . . .	332
Art News of To-day . . . . .	327	New Books . . . . .	333
Competition News . . . . .	327	Science, Efficiency and Progress v. Stereotyped Building Acts . . . . .	334
Architecture as Everyone's Concern . . . . .	328	English Forestry Association Trading Scheme . . . . .	336

## Architecture at the Royal Academy.

THE work shown in the Architectural Room of the Academy reflects—as it always must—the conditions of the time, and unfortunately these are not of great promise. The advent of a great commercial boom which was optimistically anticipated in the autumn of 1918 have been dissipated by the prevalent commercial unrest, and many of the ambitious schemes projected at the conclusion of the war will never be expressed in structure, and were, perhaps, even too evanescent to take form on the drawing-board. The work now being carried out is but a fraction of what would have been executed under happier auspices, and, for the most part, only buildings which are absolutely necessary are being carried out. Building owners and the architects employed by them are loth to illustrate schemes which are temporarily or absolutely abandoned and may be mere *châteaux en Espagne*, with the result that a somewhat disappointing collection of works, mostly small in size, represent the year's work.

Of these, too, a large number consist of parts of housing schemes projected or carried out. War memorials, which figured so prominently in former exhibitions, are sparingly represented, since, like other intrinsically desirable works, they represent an expenditure of money which the great body of the public have not at their disposal.

But while there is little work of outstanding interest or merit, there is surprisingly little which can be fairly condemned, and just as the close of the Napoleonic wars was marked here by an era of utilitarian buildings of little interest but devoid of vulgarity, so there is now evidence that the broad principles of reasonable design appeal to a greater body of the public and those who design for them.

The President of the Academy and Mr. Maurice Webb are represented by drawings of three important and interesting works. No. 945, a design for the Bank of Chile, Santiago, shows a well-planned and balanced composition in which the great banking hall is expressed by a columned portico, the various departments of the bank being grouped round the sides and rear of the building, and space left for future extensions on each side of the portico, the whole constituting a pleasing and dignified group of buildings.

The Textile Trades' War Memorial, No. 1,039, is specially planned: the large centre block containing the public rooms, with space for a future gymnasium and chapel at either side, while beyond these are three smaller blocks, each containing two boarding-houses, with masters' houses at either end. This important and interesting group of buildings is treated in the type of free English Renaissance which Sir Aston Webb usually adopts. The third exhibit shows a group of cottages at Cranston for Messrs. Crosse & Blackwell, No. 1,044, the cottages being connected by a continuous roof and forming an excellent and pleasing mass. Sir Edwin Lutyens is represented by a drawing of the All India War Memorial at Delhi, No. 950, which is shown in a very powerful water-colour drawing by Walcot. It easily asserts its position as the most important drawing in the room by the powerful impressionistic manner of its rendering. We illustrate the Memorial, which is fine and dignified in its mass and proportions, but the detail of the cornice and other architectural features are entirely spoiled by the method of draughtsmanship, and we shall have to wait to see how far the designer has tempered a

western style to suit an Eastern environment. The solution of this problem is to most architects a most interesting question.

Sir Reginald Blomfield sends his design for a memorial chapel at Lyssenthoek, No. 981, and a sketch for the Leeds war memorial, No. 1032, the first of which we illustrate in this issue, both being very characteristic examples of the author's design.

Mr. Ernest Newton and his sons are represented by five drawings, the first two of which, Nos. 918 and 921, submitted in conjunction with Mr. W. Nicholls show views of the Monastère du Carmel, a fine and dignified rendering of convent design which we are glad to think of as planted on French soil to show the best qualities of our national design; and Nos. 953, 1070, and 1076. The first being the interesting war memorial for Uppingham School, and the last two the Marlborough College war memorial, illustrations of which we gave recently.

Sir John Burnet, the new associate-elect, is represented by two drawings, Nos. 975 and 1035, the first showing Adelaide House the great factory building which is to be erected opposite Fishmongers Hall on the site of the Pearl Insurance offices. This is in most respects the most remarkable design exhibited and achieves a great measure of success as a study of simple and effective massing. We are not so imbued with the spirit of eclecticism to altogether like the suggestion of an Egyptian manner in the treatment adopted, and should have preferred the achievement of a similar result by the use of more traditional elements, but this is but to say that we prefer an architectural language which recalls a building's locality and the traditions of a nation, but as a matter of pure composition the design could not be improved in its main outlines. Sir John Burnet and Partners' other drawing No. 1035, shows a scheme for the improvement of Ramsgate, but without a full plan it is difficult to follow, though it gives promise of much interest.

Sir Robert Lorimer shows the proposed memorial screen and organ of Merton College Chapel, Oxford, No. 978, the proposed war memorial Queenstown, Cape Colony, a fine and dignified mass with one blot—the four soldier figures awkwardly placed on brackets round the obelisk. These conflict in scale with the fine dominating figure and detracts from the dignity of the composition. No. 1007 shows the war memorial at Westminster School in a very convincing type of vernacular Renaissance, than which nothing could be better suited for its purpose.

Mr. Robert Atkinson sends a series of good water-colour views, of which No. 948 shows the treatment of a private swimming bath, No. 952 the decoration of a room at Cherkeley, Leatherhead, and No. 956, the garden of the same house. Both as drawings and representations of design these are among the best work of the year.

Mr. Curtis Green gives the drawings which show respectively the showroom of the Wolseley Car Company, No. 914, and the entrance to the same building, No. 929. We are glad to see that the quality of design which distinguishes this admirable building is carried out in its detail.

The very important scheme for the London County Westminster and Parr's Bank, which was recently won by Messrs. Mewès and Davis, and which we have illustrated, is shown in a carefully and fully detailed model, No. 1082, which gives a far better idea of its appearance than can be gathered from the drawings, while it indicates its position in respect to adjoining buildings.



Had we not known the authorship of this design we should never have suspected it, for it would seem to be based on the type of City buildings erected during the middle decades of last century, and is calculated to appeal to the "City man." We can almost imagine it to be the result of a fixed determination to give nothing which could strike a business man as being "unusual" in character. It is needless to say the design is refined—it could not have been otherwise, but in its present form it is hardly equal to the work which has given the firm its great reputation. We naturally speak in ignorance of limitations and conditions, which may have affected the authors' treatment of a most difficult subject.

It will be convenient to deal with other drawings in numerical order. The proposed Public Library for York, by Messrs. Brierley and Rutherford, No. 910, is shown by an excellent plan, the promise of which is not borne out by the **weak and ineffective elevational treatment**. We expect better work from Mr. Brierley, and are not often disappointed. Mr. Burke Downing gives us a clever pencil drawing of his Church of St. John, at Walthamstow, No. 915, and the chapel of Brighton Training College, both of which are good examples of his mastery of Gothic design. Mr. Thomas Tyrwhitt, in No. 916, shows a good group of cottages at Scotsgrove, Thame, and in No. 1027 additions to Rudge Hill House, Gloucestershire. Both of these show much feeling for mass and proportion. In No. 918 Messrs. Mewes and Davis give the front of 42 Upper Brook Street, a pleasant example of Adam design, simple and reticent in its character. The church of St. Hilda, Hartlepool, by Mr. W. Caröe, is a good example of his work. We like the block of offices in Gray's Inn Road, No. 924, by Messrs. Riley and Glanfield, shown in a clean and well-rendered colour drawing, though the treatment of the coping over the central feature rather detracts from the scale of the design. Mr. Sydney Castle's house at Sevenoaks, No. 927, is strikingly picturesque, and is shown in an admirable pencil drawing.

The two houses at Alderley Edge, Cheshire, by Mr. F. Milton Cashmore, No. 930, form an unusual exercise in design cleverly treated, and apparently dictated by some special requirements of locality and environment.

The National Physical Laboratory at Teddington, No. 934, by F. A. Llewellyn, is a very pleasant example of quiet and unostentatious design. Messrs. Niven & Wigglesworth's alterations to 27 Portland Place is a perfect example of the value of simplicity and faultless proportion. Mr. Paul Waterhouse essays a Scotch manner in his treatment of Castle Wynd House, St. Andrews, No. 936, and cottages in the same town, No. 938; they are good in their main outline, but a little deficient as expressions of the Northern vernacular. In his clever design for the proposed Hydro Electric Power House, Aswan, Egypt, Mr. David A. Beveridge has nearly, but not quite, succeeded in giving the character of Egyptian architecture. No. 942 shows Mr. W. Henry White's design of a good interior at No. 2 Bayswater Hill, W., and the new front to Lloyd's Bank at Andover. Mr. Horace Field has surpassed his own high average standard of design. Nothing could be better than the admirable proportion and reticence of this beautiful little stone front. We thought we were looking at a view of a museum in No. 946, which we were surprised to find represented a modern fish shop, Old Bond Street, by Mr. Leslie Mansfield. Surely even the soul of a fish would be gratified to rest in so architectural a setting. The late Henry T. Hare and his partner, Mr. Bertram Lisle, are represented by drawings, of which No. 951 shows proposed tenements for the Borough of Hammersmith (southern area), a fine and dignified quadrangular treatment, a little more suggestive of a college than a series of tenements. It may be rather elaborate for its purpose, but is an admirable example of design.

The Uppingham School Memorial by Messrs. Ernest Newton & Sons, No. 953, is a pleasing and carefully detailed piece of Tudor composition. In 954 Messrs. Blow & Billerey show a view of a house which is too impression-

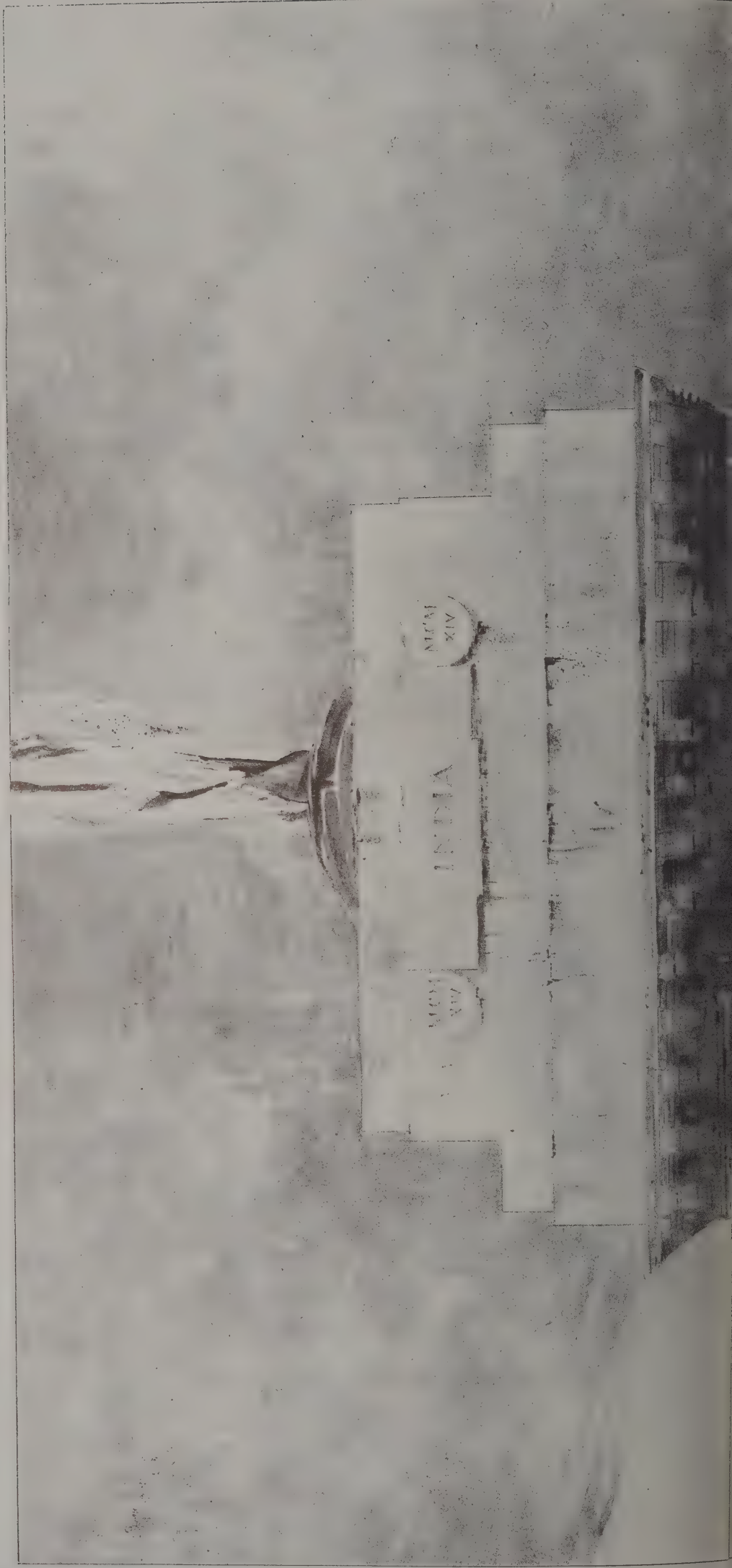
istic to have any value as an illustration of architecture. The new library and lecture-room of Selwyn College, Cambridge, No. 955, by Mr. Thomas H. Lyon, is simple and good, and maintains the designer's reputation. No. 958 shows a clever design for the Sheffield Memorial Hall, in which the authors have avoided a columnar treatment, relying for effect on a fine series of recessed arches. We are a little puzzled by the proposed council chamber by Mr. William T. Benslyn, No. 962, as we are not told whether it is an essay in design or a specific scheme for an actual building. However this may be, Mr. Benslyn has produced a very beautiful Byzantine design, showing a high order of knowledge and skill. Mr. Walter Tapper's War Memorial Tower at Loughborough is a little disappointing, though it is a good sound piece of design. In their proposed flats, Regent's Park, No. 964, Messrs. W. & E. Hunt have produced a most successful study of design, relying on mass and proportion for its effect. The Brookfield Housing Scheme for St. Pancras, by Mr. Albert J. Thomas, No. 966, shows an unostentatious group of pleasant houses. Mr. Arthur T. Bolton's Seaside Bungalow for a Family, No. 969, is a good example of design, based on Renaissance precedents, and economically carried out.

The New Departmental Store, by Messrs. R. Frank Atkinson and Cyril A. Farey, is rather like the curate's egg—good in parts but unsatisfactory as a whole. No. 971, an Electric Apparatus Factory, is an exceedingly good example of well-proportioned, scholarly design. Mr. Guy Dawber is represented this year by some well-considered thatched cottages, No. 984, and by the Memorial in Ely Cathedral. The Kitchen Court House in Argyllshire, by Mr. Oliver Hill, No. 987, suggests an addition to an historic building, and is very quaint and interesting. In his design for a Proposed Warehouse, Gravel Lane, S.E., No. 988, Mr. Arthur Sykes shows how a simple and commonplace subject may be made interesting by the right treatment. Mr. C. Williams-Ellis, in No. 991, shows a very vigorous and clever design for a Memorial Hall and Chapel at Bishops Stortford College, which errs on the side of theatrical display. Mr. C. H. Biddulph-Pinchard's Church at Birmingham, No. 995, promises to be interesting, but we can only with difficulty guess its form and detail from the drawing. No. 996 is one of Mr. Horace Field's excellent little Georgian street fronts. In No. 997 Mr. Stanley Hamp shows a good War Memorial for Mill Hill School, carried out in a Greek manner. We have already illustrated the adopted design for the War Memorial Hall at Sheffield by Mr. Vincent Harris, which is shown by a careful perspective, No. 1,002. The Guildford Grammar School, West Australia, No. 1,003, forms a good group of quietly designed buildings by Mr. Walter Tapper. In the Nicholson Memorial Tower, Leek, Messrs. P. S. and J. H. Worthington's powers of design are hardly seen at their best. The detached tower has never been adopted as a feature of our national design, and few men seem to quite realise how it can best be treated. The House at Chilham, No. 1,011, like all of Mr. Baillie Scott's work, is good, but the drawing sent in hardly does it justice. No. 1,030 shows a good church design by Mr. A. H. Ryan Tenison; Nos. 1,014 to 1,025 are a series of drawings of stained glass by different artists, which once more emphasise the impossibility of conveying an good idea of windows by drawings. A few feet of the actual glazing would often give a far better idea of the type and merit of the design than the most elaborate drawings can, we do not know whether at some future time actual glass could be shown at the R.A., or whether this most important branch of design can only be shown in an "Arts and Crafts" Exhibition. Sir Thomas Jackson is represented by a good War Memorial for Wimbledon, one for Radley College, No. 1,040, and by the proposed new Cloister, Bath Abbey, No. 1,031, all of which are characteristic essays in traditional design. The War Memorial for Stockton-on-Tees by Messrs. Lanchester, Richards and Lucas is either an example of Richards' characteristic type of design or shows that his partners are carrying on the traditions he founded. In any case it is among the best work in the Academy.





THE ARCHITECT, MAY 6th, 1921.







SCREENLESS PHOTO PROCESS, SPRAGUE-HAYCOCK (PRINTERS) LTD. 69 & 70, DEAN STREET, LONDON, W.1.

ALL INDIA WAR MEMORIAL : IMPERIAL DELHI.

SIR EDWIN L. LUTYENS, R.A.



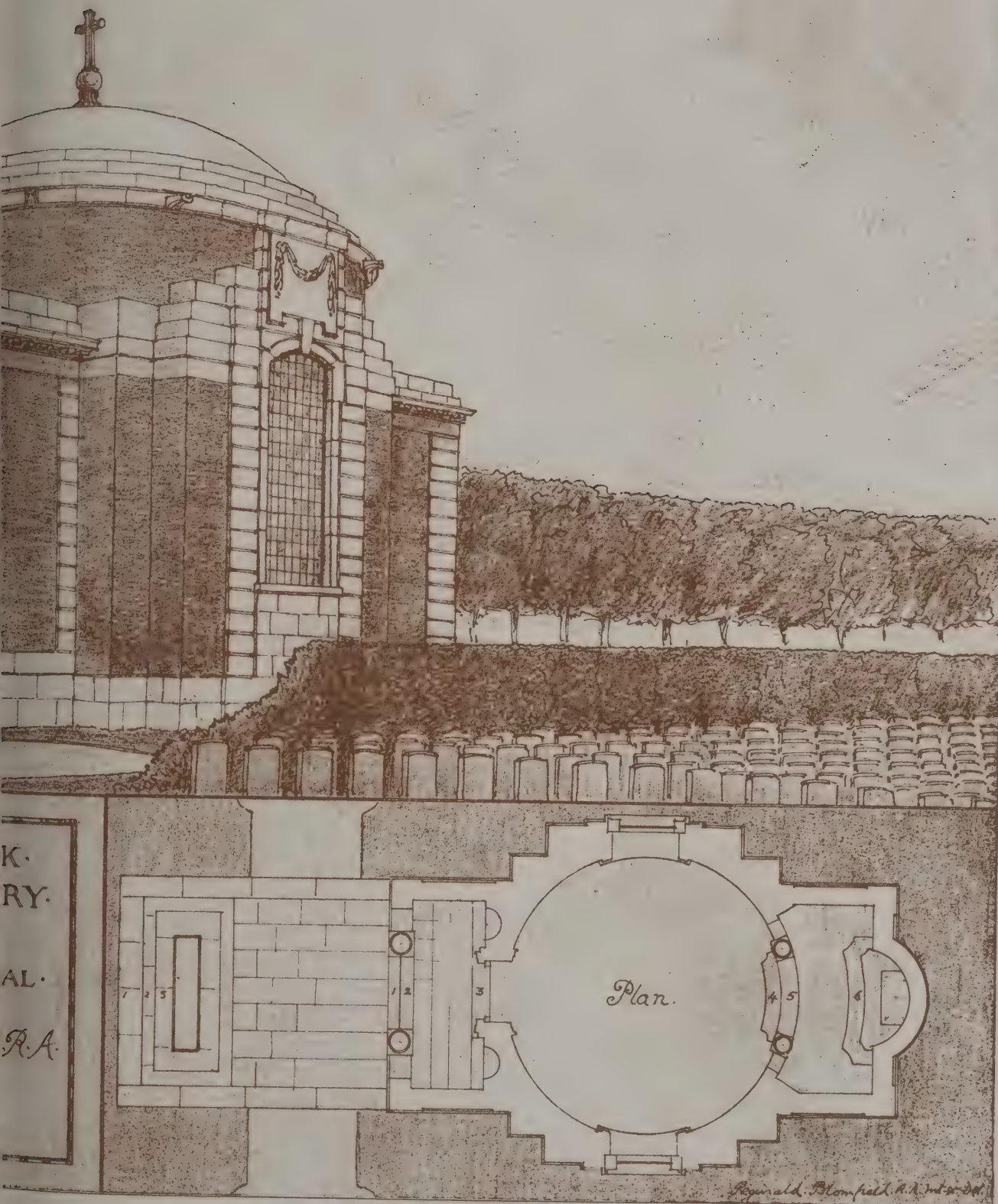








Y 6th, 1921.



K.  
RY.  
AL.  
R.A.

MEMORIAL CHAPEL.

HITECT

SCREENLESS PHOTO PROCESS, SPRAGUE HAYCOCK (PRINTERS) LTD. 69 & 70, DEAN STREET, LONDON, W.1.











6th, 1921.







Mr. Cowles-Voysey sends several examples of his work, notably a drawing showing King Alfred School, No. 1,049; a cottage at Princes Risborough, No. 1,067; Messrs. Mawson's Ionian Bank at Salonika, No. 1,066 is good as is also Mr. Joseph Sunlight's quiet interior of the Bank of Athens, Manchester, No. 1,072, which we take to be a reconstructed interior. Mr. Vincent Harris shows in No. 1,078 the H.M. Queen Mary Maternity Home at Hampstead, a large and ambitious scheme very ably treated. We have not commented on many good examples of domestic work which are shown and which constitute the greater proportion of the exhibition this year. It is natural that this should be so, but we hope

the close of the next twelve months will enable architects to make headway with schemes of greater public interest, though possibly not of greater interest to the individual members of the public, whose interest in building is often confined to consideration of the house.

But whatever work is done an improvement in its quality depends not so much on the much talked-of improvement in the public taste, as that is in the greater measure in the control of architects themselves, for it is in their work—good, bad, or indifferent—that the elusive quantity “the taste of the general public” is really founded.

## Illustrations.

ALL INDIA WAR MEMORIAL: IMPERIAL DELHI. SIR EDWIN L. LUTYENS, R.A.

The foundation was laid on February 10, 1921, by Field-Marshal H.R.H. The Duke of Connaught, K.G.

The inscription on the foundation stone is in two languages, and the words “India 1914-1919” are the only dedication.

The Archway is at the East End of the Main Processional Avenue, which is flanked by canals of running water, fountains, and avenues of great trees, looking up to Government House, which terminates the great vista to the west.

The main Arch is 87 feet 6 inches high, with a width of 35 feet.

The lateral Arches are 20 feet wide and 40 feet high.

The Archway is built of sandstone, surmounted by a tank to be filled with petroleum, so that on days of commemoration there will be a volume of smoke by day and of fire by night.

In India there are creeds widely differing, and it is essential and right that the creed of no man who made sacrifice in the war should be offered offence.

The design is by Sir Edwin L. Lutyens, R.A.

LYSSENTHOEK BRITISH MILITARY CEMETERY: MEMORIAL CHAPEL. SIR REGINALD BLOMFIELD, R.A., Architect

A PRIVATE SWIMMING BATH. ROBERT ATKINSON, F.R.I.B.A., Architect.

## Notes and Comments.

### London in 1971.

DEAN INGE made an amusing speech at the annual dinner of the London Society, at which the aspect of London fifty years hence formed the subject of discussion. The Dean would, instead of adding to memorials, demolish some of the hideous structures we possess, and suggests that the Armistice might fittingly have been celebrated by the demolition of Charing Cross Bridge, and the conclusion of peace by the blowing up of the Albert Memorial. He anticipates that owing to the decay of our foreign trade the London of fifty years hence will be smaller, and not larger, than that of to-day, and even more dilapidated. Naturally, as always, his utterances are not to be taken at their face value, but represent an exaggeration of that value, and are made with the clear object of correcting popular fallacies. But it is obvious that if the years to come were repetitions of the last few ones the population and trade of the country would dwindle and not increase. The enormous development of the nineteenth century was made possible by our almost unchallenged commercial supremacy, and will in all human probability never be repeated. What we may look forward to if we can find a solution to internal troubles is a condition under which we can secure a large volume of the world's trade, which in the past formed the great factor of our commercial success; but this can only be effected by competent effort and good administration, and we can no longer depend merely on the gifts of fortune. We should not be surprised if this is what the Dean meant.

### A Chance for All.

AN American architect advertises in “The Times” that he is ready to take motor parties to see Canterbury and its cathedral, which suggests some interesting questions. Presumably, as the advertiser mentions his nationality, he presumes it will constitute an attraction to the readers of “The Times,” and we naturally ask, Why? Is it that

he will explain how much better these things are done in America, or is it that he will disclose knowledge undreamed of by the English architect? Or, again, is it that his appeal is really for the sons and daughters of Columbia who may be weary of the flat and dull English accent, and may prefer the sharper and more tonic tones of their native country? We should welcome an answer to these questions if these words are read by our Transatlantic colleague.

### Restoration at the British Museum.

MR. JACOB EPSTEIN writes a letter of protest to “The Times” denouncing the present policy of the British Museum, where he says the authorities are providing old Greek sculptures with new plaster noses and other “additions.” Mr. Epstein says:—

“No doubt the Museum authorities do not like the Greek marbles in their possession, but why they should translate the masterpieces into something more nearly approaching the Albert Moore ideal of Greek passes my understanding. The Demeter is not only “improved” with a new plaster nose, but to bring the rest of the head into consistency with this nose the whole face has been scraped and cleaned, thus destroying the mellow golden patina of centuries. Other important pieces “improved” are the marble boy extracting a thorn from his foot, and the very fine priestess from Cnidus, so altered as to give an entirely different effect from that it originally had. How long are these vandals to have in their “care” the golden treasury of sculpture which at least they might leave untouched?”

We are not told how far this policy of restoration will be carried or whether it would include supplying antiques with missing arms or feet, but on the face of it Mr. Epstein would appear to have some reason for his protest.



## Painting at the Royal Academy.

(All rights reserved.)

WHEN Burlington House has opened its doors to the public this week I think that the general impression will be found to be that this year's Royal Academy, while reaching a good average of work, is deficient in any features of very marked or outstanding interest. Looking at the exhibition in its general character, I find that the landscape—including some cattle pieces—is of marked success, the portrait work less important on this occasion, there are some few figure paintings of exceptional interest, and the sculpture is the weakest point in the exhibition.

I propose now to take the rooms in order, and see how the works themselves bear out the above criticism. In landscape the first Gallery has Oliver Hall's "Outskirts of the Forest" and two paintings by Arnesby Brown, of which "The Waveney Marshes," with its cattle feeding in the rich marshland pastures and dome of sky with fleecy clouds, is typical of this artist. A fine interior of Durham Cathedral by D. Y. Cameron is here, and two interesting portraits—Sir William MacCormack, by Sir William Orpen, and Sir Aston Webb, a good likeness of the President, by Sir William Llewellyn—this latter a diploma work on his election as Academician, as is the case also with Richard Jack's "On the Moors" in this room. Mr. Charles Sims' "Wedgwood" here is original and charming: two figures of young girls are holding a baby in crossed hands between them, and the golden white figures against a sky of "Wedgwood" blue barred with white clouds make a charmingly decorative effect.

In Gallery II. we come upon a delightful "Provençal Farmhouse" by H. La Thangue, with southern figures steeped in strong sunlight; and near by is Charles Shannon's diploma work, "Vanity and Sanctity," where the nude figure of a woman facing one dressed as a nun and holding a child suggests a reminiscence—though a very long way off—of Titian's famous "Sacred and Profane Love." In this room Frank Salisbury's large canvas of the burial of the Unknown Warrior in our Abbey on November 11, 1920, claims a word of notice: this difficult subject-matter is treated here as well, perhaps, as could be done, the portraits well rendered, and the whole an effective illustration of a great moment in our national life.

The place this canvas might have claimed in Gallery III. is taken by one as large, or larger, of "Some Sea Officers of the War," by Sir Arthur Cope, which is destined for the National Portrait Gallery. In both these works of record the key supplied by the catalogue will be found of great interest in following out the portraits of our leaders in the war. The centre of the next wall in this room holds Sir William Orpen's brilliant study of a cook in his working dress, "Le Chef de l'Hotel Chatham," seen three-quarter length, a most successful piece of work; and near this a "still-life" by Orlando Greenwood, whose work I noticed only recently in these columns, is cleverly handled, while on the same wall Henry Tuke's "Facing South," figures of boys bathing, is typical of this fine artist at his best.

Rosalie Emslie had some portraits in last year's Academy; but this year she has excelled herself in her half-draped figure of a young girl, called "She Walks in Beauty," in this room. There is fine drawing in this figure, notably in the hands and treatment of the torso in its modelling; the colour is cool and clean, and the figure is outlined against blue seas and a framing of rocks such as Leonardo loved.

I prefer this figure to the late Mr. William Strang's "Venus and Adonis" on the same wall, where Venus is a studio model stripped, Adonis a clumsy peasant lad, beside whom the boar, cause of the tragedy, walks in the most friendly fashion. What this really fine artist could do in portraiture is shown in this Academy in his "Irene." The next wall in this same room contains some of the best landscape work in this exhibition, beginning with "A Suffolk Pastoral," by Philip Connard, then "The Fringe of the Pine Wood," by that veteran Academician, Mr. B. W. Leader, who has also two delightful works ("The Bay of Aberdovey" and another) in Gallery VIII.; then a little further (still Gallery III.) Hughes-Stanton's sunrise at Titchfield Haven, Hants, which I incline to think the finest landscape this artist has ever given us, and near this George Clausen's poetically conceived "Midsummer Dawn." I feel that the above, with others I have mentioned, might fairly justify my original claim that this is a good landscape year; but I might add to these Leonard Richmond's finely handled "Estuary, Barmouth," still in Gallery III., Austen Brown's Chelsea scene of Riley Street (Gallery V.), and (Gallery VIII.) "The Freshness of the Morning," by Algernon Talmage.

I have watched for some years with keen interest this artist's work, which has attained very high recognition recently in America, but I consider he has never surpassed this quiet scene of cows feeding in the pasture immersed in the clean, pure morning light; and I am now going to mention another work, by a different artist and different medium, which is no less fine. This is Russell Flint's "Rolling Clouds" in the water-colour room. I have followed Mr. Flint's work in these columns in recent years, but here too I feel that this fine artist has surpassed himself in his magnificent handling of these rain-laden clouds over a dark blue sea: his "Wet Sands" with bathing figures is clever, but is the Russell Flint we know and admire,—but the work before mentioned is on a yet higher level.

I come now to figure paintings, and have here to mention specially a remarkable work (Gallery IV.) by Glyn Philpot, in the centre of a very badly hung wall. To call this work "Goyesque" in feeling would be to say that the artist might seem to have inspired his fancy by some of those weird visions of the unknown world which Goya painted in his later life. These three nude forms—two men, of herculean mould, and a woman—move hurriedly through drifting clouds, over crags and rocks, in a dim terrible world where we feel the immense rush of wind—that spirit (spiritus) which goes whither it lists. Another work to be noted will be found in the sculpture room (Gallery XI.). It represents the return to Mons of the Canadian troops on November 11, 1918, and is by I. Sheldon Williams, who I believe to be a Canadian artist. In any case, there is very fine drawing and colour in this canvas, which will be a valuable addition to the Canadian Memorial paintings.

I am reserving this year's sculpture for a separate and later notice: some of it is placed this year in Gallery VI., and four paintings only find a place here, the north and south walls being given to full-size copies of Raphael's Cartoons made by Sir James Thornhill. Considering the vital importance of our one great annual exhibition to modern British artists this seems somewhat severe treatment, for the wall space of a room is a very serious loss. The hanging has, from what I hear, been rigorous this year, and artists of known merit do not appear who have been frequent exhibitors. No one could have more sympathy with the claims of sculpture than myself; but, if it is to claim space from the paintings, it should merit this by a higher level than this year appears in the works which have been selected for exhibition.



## London Art Galleries.

(All rights reserved.)

THE twenty-seventh London exhibition of the International Society of Sculptors, Painters, and Gravers opened at the Grafton Galleries on Wednesday, April 27, and attracted a very large number of visitors. This is an interesting and well-organised exhibition, with work which connects itself with the modern spirit in the sense of novelty and freshness of outlook. The very first painting, a little oil study by Vollon of the "Avenue Trudaine," is extraordinarily clever and charming; and we go on to study Degas, Legrand, Besnard, and Manet himself in a fine three-quarter length of "M. Antonin Proust," wearing a silk hat and the frock coat of his day.

Among the portraits we may select for special mention that of "Colonel Lawrence," by the President of the International Society, Sir William Orpen, R.A., who has also here a very clever portrait study of an Italian Major, with some telling impressions ("Boche Plane Passing St. Denis") of the late war, and a strong head of General Jan Smuts. Laura Knight has a good portrait, strongly put in, of "Claribel Lucas"; and the American exhibitors, Mary Cassatt, Arthur Davies, and Cecilia Beaux, add an interesting note to this display of international art, beside the art of France and Belgium (Leon de Smet, Albert André, and others).

Under the title of "Romance," Cecile Walton shows an original and well-handled treatment of her subject, which depicts a young woman lying down holding up a tiny baby, while her feet and legs are being washed by a nurse. The drawing here is good, and the colour very clean and fresh.

At Walker's Galleries that admirable water-colour artist, Alfred Rich, is holding an exhibition of paintings, which I prefer to leave till the pressing interest of the work at Burlington House is less insistent; and the same applies to the water-colour portrait studies now on view by Miss Ashmore at Goupil's Galleries.

S. B.

## Art News of To-day.

THE important sale of "Arms and Armour" from St. Donat's Castle, which has been mentioned in these columns, took place at Messrs. Christie's last week, and, as we anticipated, fetched very high prices. Messrs. Duveen came forward largely as buyers, and to them fell for £924 the full suit of fluted armour (German, *circa* 1490) which was illustrated in the catalogue. Yet more sensational bidding took place over a fine sword of the "Bastard" type, a noble weapon with a blade of superb quality, formerly in the Londesborough Collection. This grand Italian sword, in the style of Ercole Fideli (also *circa* 1470) fell likewise at the finish to Messrs. Duveen at the satisfactory figure of £3,097 10s.; and the same buyers took the complete suit of boy's armour, of bright steel throughout—French work, of about the year 1560—for £997 10s.

We hear that Miss Flora Lion, who is not exhibiting this year at Burlington House, has two paintings accepted for the Paris Salon, one of these being her fine full-length

portrait of Mme. Merry del Val, wife of the present Spanish Ambassador at our Court, which appeared in last year's Royal Academy.

In the sculpture at this year's Royal Academy S. W. Ward Willis has two subjects accepted, one of these being a joint memorial tablet with another artist, the other a figure of an old man and child—its title, "The Past." Mr. Reid Dick is again very successful this year with a draped female figure intended for a war memorial.

Among the etchers this year is an exhibitor, Miss Eileen Soper, of the age, we understand, of fifteen. This young artist, who has two etchings accepted, is the daughter of Mr. George Soper, of the Royal Society of Etchers.

## Competition News.

MEMBERS of the Society of Architects are requested not to take any part in the Sutton Coldfield War Memorial Competition without first ascertaining from the Society that the conditions have been approved by the Council.

THE Greenock War Memorial Committee invite sculptors and architects to submit designs for a memorial to cost £7,000. The competition will be in two stages. First stage, sketch drawings; second stage (limited to five competitors), models, all of which will be premiated. Professional assessors, sculptor and architect, have been appointed. Conditions of competition may be obtained from Mr. Andrew Nimmo, Town Clerk, Greenock.

THE R.I.B.A. Competitions Committee desire to call the attention of Members and Licentiates to the fact that the conditions of Salisbury War Memorial Competition are unsatisfactory. The Competitions Committee are in negotiation with the promoters, in the hope of securing an amendment. In the meantime Members and Licentiates are advised to take no part in the competition. A similar notice to the above has been issued by the Society of Architects.

At a special meeting of the Council of the Glasgow Institute of Architects, held on the 27th ult., the prizes in the competition for the Alexander Thomson Travelling Studentship in Architecture were awarded as follows: First, £75, Alan Crombie (with Messrs. J. Burnet & Son); second, £25, A. G. Paton (with Messrs. Keggie & Henderson). The subject of competition was a "Temple of Memory," and designs were submitted by six candidates from England and Scotland. The drawings will be exhibited in the Art Galleries from May 10 to 15.

In the open competition for the Royal Engineers' War Memorial the assessor, Sir Reginald Blomfield, R.A., Litt.D., has awarded the first premium of £200 to Messrs. Hutton & Taylor, F.F.R.I.B.A., of 212 Bath Street, Glasgow; the second premium, of £125, to Major E. Vincent Harris, O.B.E., late R.E., of 29 St. James's Square, London, S.W. 1; and the third premium, of £75, to Messrs. W. Harvey, J. F. Wilson, A.R.I.B.A., and Ferdinand V. Blundstone, 119 North Hill, Highgate, N. 6. The Committee has accepted the award of the assessor, subject to certain modifications in detail, and the work will be put in the hands of the competitors placed first by the assessor. 101 designs were submitted for the competition.

## R.I.B.A. Conference and Annual Dinner.

In consequence of the industrial situation it has been necessary to postpone, until a date which will be announced later, the annual dinner of the Royal Institute of British Architects and the Conference of the Franco-British Union of Architects.



Little Boy Mond, blow up your Horn, The Ex-Soldier's Homeless, the Builder forlorn,  
Burn Addison's Forms, Let's discover the key Of a cottage for Heroes, and a Peerage for Thee!



## Architecture as Everyone's Concern.

THE first of the series of public lectures to be given at the Galleries of the Royal Institute of British Architects on Thursday afternoons proved an unqualified success. Mr. A. Clutton Brock enjoys a wide reputation as a writer and art critic and attracted last week a large audience, the majority of whom were laymen. Mr. John W. Simpson, President of the R.I.B.A., was in the chair.

Mr. Clutton Brock in introducing his subject said that he enjoyed a certain advantage in giving the lecture in the fact that he was a complete amateur. It was an advantage because the public had an uneasy feeling about every profession that it was a conspiracy for the purpose of forcing its schemes upon them. The clergy, for instance, say there is nothing like going to church. Architects always insist that architecture is one of the most important things in the world. In consequence a prejudice is created against them. As an amateur himself he (the speaker) felt in a strong position when he asked those present to be interested in architecture. Their reply might be that as persons of taste they were already interested in it. Therein lay the first obstacle. Nearly everyone believes themselves to be born with taste which enables them to distinguish between good and bad. Though at the same time each believes it is extremely rare for others to be born with this mysterious sense. It is usually expressed as "I know what I like." If that were only true! One of the most difficult things in the world is for anyone to know what they like. We go about being hypnotised as to what we like. The old confidence trick can be played upon us because of our conviction that we can tell at a glance what is good and bad. Personally he had to confess that he only began to learn anything when he got rid of that idea of knowing instinctively good from bad. One ought not to ask oneself what one thinks of a thing; but to question oneself seriously as to whether it is right or wrong, good or bad, and why. It is as difficult to get that conviction of original sin into people as it is difficult to get out of the minds of young mothers the idea that they know by instinct how to feed their babies. What young mothers need in order to lessen infantile mortality is a knowledge of principle. So, too, what the public needs in questions of taste is a knowledge of principle. When a new monument or building is put up in London all sorts of people write to the papers to say that it is good or bad; a dentist, for instance, would claim a right to express his opinion on the ground that he had for several years carried out a large practise in the vicinity. When a man has any real qualifications he ceases to talk about such things.

Architecture is not a thing concerning the principles of which English people have any knowledge such as they have, for example, about motor cars. People don't say "I know nothing about motor cars; but I know what I like." They take such a matter seriously; they learn something about machinery; they learn how function should be expressed; and so on. The result of this is that the design of cars becomes steadily more beautiful and is better than that of almost any of our conscious works of art. In the case of a motor car people really know what they want. Just because the public possess that knowledge and that interest the design becomes steadily finer and more beautiful. But the public does not call it art for the reason that motor cars are really important things! If an art such as building is going to prosper there must be a similar keen rational interest. The French cathedrals are wonderful works of engineering. When Chartres was in course of construction people all over France were interested in it. The builders of each cathedral tried to improve on what had been done before. But they did not then call it art. There was a steady improvement in design. There existed then no mystery, no belief in the architect's mind that "if he used Ionic capitals he must be right." What those people wanted was a thoroughly good building for a certain purpose. As everybody wanted it here arose a rapid

development. To-day building was much more important than motor cars. People who buy motor cars think they are advancing mechanical science, just as racegoers imagine they are improving the breed of horses. This is why foreigners call us hypocrites, which is rather hard. An Englishman always thinks that in his pleasures he is really benefiting the country and so doing his duty. But motor cars are not really as important as buildings. For one thing motor cars disappear whereas buildings do not. Therefore architecture was the concern of everybody.

Another important point was that human beings possess only a limited amount of energy and that at the present time there was very little energy to spare. So it should be put to the best possible purpose. The public needed buildings of good design and good materials. On his way to the meeting he had passed the Carlton Hotel. He would ask them to look at that building and when looking at it to tell themselves that actual human beings had carved all the ornament and that it had all been previously designed in an office. What an enormous waste of energy! What was wanted was really good design, really good material, and really good workmanship. Going along the streets of London one could not help being appalled by the waste of energy in superfluous ornament. Everyone ought to experience a feeling of *malaise* and misery at the sight of it.

To design a simple building really well was a very difficult thing indeed. Consequently, human nature being what it is, there was a strong tendency among architects to conceal the fact that they were not very good in design by the introduction of unnecessary pilasters. A writer trains himself to say exactly what he means, but the public encourage architects not to learn their real business of speaking with decision in their buildings, but to cover everything up. John F. Bentley knew both how to design and how to use materials. That fact was recognised in the profession, but most of Bentley's life was wasted on producing imitation Gothic buildings. At the end he got his chance in Westminster Cathedral after many difficulties. Unfortunately they are doing their best now to spoil his work with ornament and rich unco-ordination. The ordinary layman, of course, was not able to see with the precision of an expert. Yet even he feels an unconscious pleasure in seeing the way a problem is solved. Suppose the average person is going to build a house: if it is what it should be, if it is really good design, he will think on looking at the drawings that it has not enough features. As a matter of fact, architects are continually being tempted by their clients to add more features than the building ought to carry. If an old building is compared with a modern one in the same style, say an old Queen Anne with a modern Queen Anne, it will be seen that the modern has about twice the number of features. In the old days architecture was not conceived as something that could be drawn out in an office; it was conceived as building. If you tried to get people to buy a motor car with all sorts of filigree trimmings they would be suspicious at once, and think the ornaments were a disguise to bad design and poor mechanism. Nevertheless few people question a building decorated with all sorts of applied ornament that has nothing to do with its purpose or design. It took more talent to design a plain building than one that is ornamented. Everyone knew the difficulty and expense of buying even a good matchbox of plain design and good material, the reason being that the ornament concealed defects. The old saying was reversed and things were now *2d.* plain, *1d.* coloured. Everything was done to encourage architectural fraud and to discourage the genuine man who wants to do his work honestly.

People did not realise how important their relations were to architecture. Architecture was the most social of all the arts and it depended upon a public interest and conscience. An architect could not produce masterpieces unless he had a public behind him. An individual genius in architecture was almost impossible. Such genius was not produced by the accident of a certain number of people being born with an ability for designing buildings;



it was produced rather by a feeling in the air. All architects get their genius from the public. The art of portrait painting depends upon the kind of thing the public want—hence one gets what one does to-day at the Royal Academy. That was still more the fact in building. When one sees rows and rows of ugly houses one ought to say "That is the result of my taste and of my vulgarity." It was no use abusing the architect. Rolls-Royce architecture was the result of a public demand which wanted a car as good as it could be got. Nowadays an enormous Government building arises, no one makes any comment on it, no one knows who chose the man to design it, no one knows who did design it. If people cared about architecture, things would be entirely different. There existed a totally fallacious idea of what architecture is. When there did happen to be real beauty it was not noticed. Waterloo Station possesses very considerable functional beauty, despite its attempts at capitals on the steel pillars of the portico. But it was quite unrecognised. The failure to see functional beauty has had in the past disastrous results. The Tower Bridge at first expressed its function perfectly and really looked like gates to the sea. Later that beauty was ruined by the erection of two bad copies of mediæval towers with holes through which you could pour tar and boiling oil. People had no notion that when the actual construction was solved there was beauty. It was very important to realise the beauty in great works of engineering: it was the kind one saw in a perfect tree. It was the human emphasis of that beauty which made great architecture.

There exists an old idea that if one did not mind all these horrors everything was all right and it did not matter. But the new psychology had attacked that fashion of reasoning. It was now known that our vitality was being lowered by any kind of ugliness in our lives, just as much as it was lowered by bad drains. The effect of both being equally bad whether perceived or not. We do not live in a world without beauty without suffering from it. It was bad to live in a hideous irrational world. Let them imagine what it would be like if trees resembled electric standards or if cows walked about trying to look as if they cost more money than they really had done. But all the time we were suffering from similar vulgarities. We all had a very strong interest in improving things. The improvement can only come from ourselves. The most terrible thing was that we had divorced art from science. It was said that engineering was cold and that art bloweth where it listeth. That was not so. There exists as much science in architecture as there was art. The present unrest spreads from every other art, from painting or music to dress. A sense of design was founded on truth and reason. If the sense of truth did not begin in our buildings, nonsense would be talked in all the other arts.

There could not be the least doubt that there were now many hopeful signs; but they were very humble ones. The present-day cottages were far better than any built twenty years ago. It was natural for the English to begin with quite simple things, for we had never been good at palaces or great cathedrals. But we do excel in building country houses. People will get more and more hatred for badly-designed, badly-built cottages. If our cottages improve, our smaller houses will improve too, and gradually we will not be able to endure the intolerable nonsense of a great many of our public buildings. The public interest in design, in the solution of a particular problem, will become so strong, we will get rid of the idea of the beastly mystery of architecture. There was a real tradition in design. At the same time there were new problems continually arising. New solutions were wanted for these. People ought to take an interest in the buildings they passed in their walks. Very few people ask themselves, "Is that building designed from within outwards?" If that interest was taken, walks would become much more interesting. In a building there was a particular conception; there was a particular problem of design and a particular material. Unless it was seen in those practical terms there could not be a sensible interest. A vague æsthetic interest is no use

in judging a building. Just as some people get to love bad journalese, so they get to love vulgarity in architecture. Such architecture was like an ill-bred man who pretends to be a gentleman without trying to be one. The sense of distinguishing good from bad was acquired gradually. The mere fact of having seen a few masterpieces in, say, Florence would not give it.

Mr. Clutton Brock said he was sure that architecture had the effect of heightening or lowering one's vitality. On looking back on his boyhood's tramps in the neighbourhood of his home he found that he always felt tired when passing through places where there were hideous cottages. On the other hand, when in the Piazza at Rome he felt so full of life that he could knock down twenty men; but he did not get that sensation in Piccadilly Circus. In Bond Street he experienced a kind of nightmare feeling that the whole world was nonsense. They needed to get hold of reason from as many sides as possible. If their streets improved, their vitality would be heightened, and they would come to believe more and more in a reasonable universe. If that did not happen their view of life would grow more and more despondent, and they would fall into the curious habit of talking nonsense and believing that it was not nonsense. It was important they should get things right and straight so that they should talk sense, build sense, and live sense. This is more important than many of the moralities, and things like European wars arise from its neglect. Everyone could take one side or the other. The expert has got to have the help of the whole public. Therefore, architecture was the concern of everybody.

## "The Architect" Fifty Years Ago.

MAY 5, 1871.

### ARCHITECTURE IN THE CITY.

MESSES. WHEELER & Co., of Poultry, are erecting a new building upon the above site, partly for their own occupation, partly for Messrs. Mappin & Webb, and also for letting as offices; the position is an important one in the immediate neighbourhood, and in sight from the Bank, the Mansion House, and the Royal Exchange. The style of all these is Classical, of varied character; and partly, no doubt, with a view to contrast that adopted for the new building is German Gothic of about the date of the fourteenth century. The length of frontage in the Poultry is 57 feet 3 inches, in Queen Victoria Street 96 feet; at the angle there will be a circular corner, 23 feet 3 inches round; and the building, almost triangular in plan, widens out at the back to 75 feet. The basement, now in course of erection, consists of two storeys of somewhat less than 12 feet each in height, the sub-basement being arranged for sub-letting as cellars.

A SUB-COMMITTEE met at the Guildhall, on Tuesday last, for the purpose of taking into consideration the proposal to erect a new fruit and vegetable market at Farringdon Street. They adjourned to the existing market there, accompanied by their architect and the president of the Market Gardeners' Society, and it was decided that the City architect should get out plans, take the necessary levels, &c. A new street is being formed from Holborn to Ludgate Hill, which will be a great accommodation to the public and give a capital approach to the new market. The scheme proposed will supply a great want of market accommodation in the Metropolis. The market gardeners have, during many years past, been memorialising the Duke of Bedford to improve Covent Garden market by covering it in, to protect the produce which is taken there, and which now is often damaged through exposure. As soon as the plans are decided on, a public meeting will be called, with the view of soliciting support from all persons sending their produce to London. It is well known that the success of any market depends mainly on the supply and the convenience of the vendors and purchasers, and it is the intention of the committee to make the new market on a level with Farringdon Street, thus giving the best possible facilities for ingress and egress.

MESSES. EDMUND KIRBY & SONS, architects, Liverpool, have prepared plans for the proposed rebuilding of the Samaritan Hospital for Women, in Upper Parliament Street, Liverpool. Over £12,000 has been raised towards the cost.





BRITISH FIBROCEMENT WORKS, LTD.

We illustrate some of the stalls at the recent Building Trades Exhibition at Olympia, but we believe that stallholders generally would be well advised to recognise the commercial value of design. It is true these erections are temporary and, compared with permanent buildings, cheap, but as a rule we should say their design needed more rather than less consideration than that of permanent buildings. Many competent designers would be willing to give their services for comparatively small fees.



THE GROVESEND STEEL CEILING CO.

and manufacturers would find that in spite of the addition of these fees the employment of good designers effected a double economy—firstly, that of producing a good effect with small expenditure, and, secondly, in giving the manufacturer a more striking and pleasing stand. As it is, the canons of sound design, which are more or less observed in permanent building, are often entirely disregarded in that of the exhibition stand.

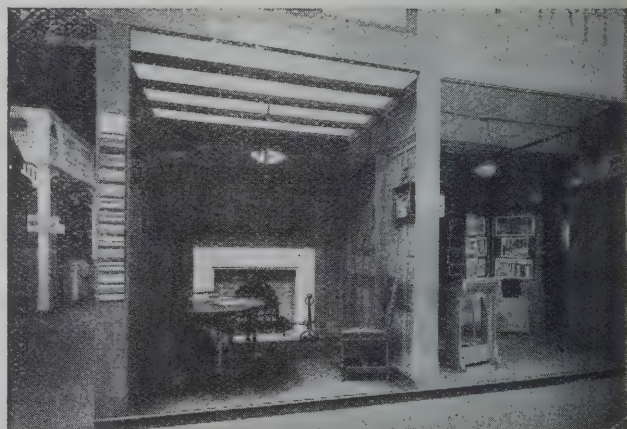
If economy is a great point to be considered it would be best obtained by the design of a stall so constructed that it could readily be re-erected for subsequent exhibitions; and in such a case the consideration of first cost would become a minor matter.



THE CRITTALL MANUFACTURING CO., LTD.



BRITISH EVERETTE AND ASBESTOLITE WORKS, LTD.



SAMUEL ELLIOTT AND SONS (READING), LTD.

MR. J. W. LORDEN, M.P., asked the Minister of Health on Monday last, in the House of Commons, whether the time had not come for a reconsideration of the Government's policy in regard to housing, seeing that the people whom the Government scheme was designed to benefit could not now afford to pay the rents demanded by many local authorities. Sir A. Mond, in reply, said he was not yet in a position to make a final statement of policy on housing; but he had no doubt it was possible to effect material economies in the building of working-class houses. He did not intend to approve of local authorities entering into further commitments unless a substantial reduction in capital expenditure could be secured.



## The Architects' Benevolent Society.

THE annual general meeting of the subscribers and donors to the Architects' Benevolent Society was held in the rooms of the Royal Institute of British Architects on Tuesday last, the 3rd inst. Mr. John W. Simpson, P.R.I.B.A., the president, occupied the chair.

The following is the report for the past year:—

The Council have the pleasure to submit their seventy-first annual report. Many sad cases have been helped during the year. The total amount of £1,474 12s. 6d. was distributed in relief—£1,135 12s. 6d. in grants, and £339 in pensions. As it was realised that at the present cost of living, the amounts granted in pensions were very inadequate, the Council decided to make a supplementary addition of fifty per cent. The increased cost of living also influenced the Council in the distribution of grants, as the pre-war scale no longer afforded the same degree of assistance. In view of this additional demand on the Society's funds, and also of the fact that towards the end of the year the accounts showed a serious falling off in subscriptions, while the claims on the Society were increasing, it was decided to issue an appeal for additional subscriptions. On December 18, therefore, a letter signed by Mr. John W. Simpson (the President of the Royal Institute of British Architects and also of this Society), Sir Charles T. Ruthen (the President of the Society of Architects), and Mr. G. Gilbert Scott (the President of the Architectural Association), was sent out to the members of the three Societies. The immediate effect of this appeal was the payment of many arrears in current subscriptions, as well as the accession of a large number of new subscribers. As the report only deals with the affairs of the Society to the end of the year, the response of the appeal is reserved for later publication.

The following donations have been received during the year:—£100 in 3½ per cent. War Bonds from an architect who wishes to remain anonymous; Messrs. Searle & Searle, £15 15s.; Mr. John W. Simpson, P.R.I.B.A., £10 10s.; Mr. J. Simpson, £10 10s.; Mr. T. E. Colclutt, £10 10s.; Mr. Campbell Jones, £10 10s.; Mr. J. T. Cackett, £10 10s.; Mr. R. Webb, £15 5s.; Mr. E. C. P. Monson, £10; Mr. A. Sykes, £5 5s.; Mr. E. J. Pullar, £5 5s.; Mr. T. D. Atkinson, £5 5s.; Messrs. W. & E. A. Hunt, £5 5s.; Mr. Edgar Wood, £5 5s.; Mr. C. McLachlan, £5 4s. 6d.; Mr. R. S. Stewardson, £5; and various smaller amounts. The total amount received in donations was £340 0s. 6d.

The Manchester Society of Architects have increased their annual subscription from £5 5s. to £10 10s. a year, and increased subscriptions were also received from:—Mr. W. Gilbee Scott, Mr. C. J. Dawson, Mr. E. R. Barrow, Mr. A. C. Bond, Mr. H. Beswick, Mr. E. F. Cobb, Mr. R. Burns Dick, Mr. H. G. M. Laing, Mr. J. O. Smith, Mr. F. J. Sturdy, Mr. Dendy Watney, Mr. T. D. Atkinson, and Mr. J. W. James.

The Council are gratified to report that the circumstances of an applicant who had received assistance during the last few years having improved, the sum of £60 was refunded together with a generous donation; a second applicant also refunded the sum of £7.

The five senior members of the Council retire by rotation, viz., Mr. Sydney Perks, Mr. Arthur Crow, Mr. George Hubbard, Mr. T. E. Colclutt, and Sir Banister Fletcher.

To fill the vacancies caused by these retirements, the Council have the pleasure to nominate:—Mr. Henry M. Fletcher, Mr. H. D. Searles-Wood, Mr. Dendy Watney, Mr. Maurice E. Webb, Mr. W. Henry White, Sir Charles Ruthen (representing the Society of Architects), and Mr. W. G. Newton (representing the Architectural Association).

The Council, in closing the report, desire to acknowledge the great indebtedness of the Society to the Royal Institute of British Architects for office accommodation and for their generous assistance in other ways, and to Mr. MacAlister and members of the Institute staff for their always helpful co-operation in all work connected with the Society.

Mr. John W. Simpson, in moving the adoption of the above report, congratulated the Society on a year which did not promise very well at the beginning. After the war there had been a falling-off in receipts. Meanwhile the claims on the Society increased. Assistance on the old basis was obviously insufficient in view of the cost of the necessities of life. As it was urgently necessary that the number of subscribers should be largely extended, a special letter was sent out asking for 1,000 new subscribers at £1 1s. each. The immediate result was to get many additional names; but their goal was not altogether reached. The actual result was 501 new subscribers, which brought in £597, and twenty-one increased subscriptions amounting to £21. The total was £618. In addition, 121 donations had been received which totalled £422. It was to be hoped that the full number of new subscribers would be reached before the end of the year. The Society ought to be made as far-reaching in its help as possible. The list of subscribers was even still far from adequate, for it represented only about 5 per cent. of the profession.

The adoption of the report was seconded by Mr. George Hubbard and carried unanimously.

The Hon. Treasurer announced that a donation of £100 had just been received from Mr. H. Greville Montgomery, per Mr. John W. Simpson, P.R.I.B.A., as President of the Building Exhibition.

Mr. Hubbard then proposed the Election of Council for the year of Office, 1921-1922, as follows:—

*President*.—The President of the R.I.B.A.

*Vice-President*.—Mr. Reginald St. A. Roumieu.

*Ordinary Members*.—Mr. W. Campbell Jones, Mr. E. C. P. Monson, Mr. Herbert Shepherd, Mr. Stanley Hamp, Mr. Saxon Snell, Mr. William Woodward, Mr. E. J. Sadgrove, Mr. Maurice E. Webb, Mr. H. M. Fletcher, Mr. W. Henry White, Mr. Dendy Watney, Mr. H. D. Searles-Wood, Mr. W. G. Newton (representing the Architectural Association), and Sir Charles Ruthen (representing the Society of Architects).

Mr. W. Hilton Nash seconded the motion, which was then carried.

Mr. Maurice E. Webb proposed a vote of thanks to Mr. W. Hilton Nash for his services as Hon. Treasurer. This was seconded by Mr. C. McArthur Butler.

Mr. Henry Lovegrove proposed a vote of thanks to Sir Charles A. Nicholson, Bart., M.A., for his services as Hon. Secretary. This was seconded by Mr. R. St. A. Roumieu.

Both Mr. Hilton Nash and Sir Charles Nicholson were re-elected.

Mr. William Woodward moved a vote of thanks to the retiring auditors, Mr. C. H. Brodie and Mr. Henry Lovegrove. This was seconded by Mr. John W. Simpson. Both these officials were also re-elected.

A vote of thanks to the Chairman was proposed by Mr. R. St. A. Roumieu and seconded by Mr. A. E. Kingwell.

Mr. John W. Simpson having briefly replied, the meeting terminated.

"My experience in workmen's compensation cases," said Judge Atherley Jones at the Old Bailey, last week, "is that though there may be exaggeration on one side of the other it is seldom there is deliberate perjury. Let it be a warning to you and others that candour and honesty are essential in claims under this Act." The Judge made these remarks to William Green (thirty-three), a labourer, who had pleaded guilty to committing perjury in two cases, and, taking into account the fact that this was Green's first offence, sentenced him to one month in the second division.

SHOWING the interest that is being taken by the Dominions in the English standards and methods of administration, the New Zealand Health Act passed last year requires that "after the commencement of the Act no person shall be appointed as sanitary inspector who is not the holder of a certificate from the Royal Sanitary Institute, or who is not the holder of such other qualification in lieu of such certificate as may be prescribed in that behalf by regulations under this Act." Examinations for the certificate referred to have been held by the Royal Sanitary Institute in New Zealand since 1911, and 84 certificates have been issued.



## A Theory of Beauty.

By Henry Hyams, F.R.I.B.A.

THE idea of Beauty has differed according to the age of the world, and the race, character and development of a person. Man in his early history would have been blind to the beauty of Greek art. What would the Greeks have thought of a Gothic cathedral, could they have looked into the future? Would not a primitive man forty thousand years ago have thought modern Europeans very ugly, could he have taken a glance into the future? Races in our own time have their own ideas of beauty: a European does not find a Chinese as beautiful as a member of his own nationality. In our own lives, too, we find that we grow out of the appreciation of one kind of beauty into another: the music and the pictures we like in our youth are not those we like in mature age. Thus the history of art is a series of discoveries of beauties to which men were formerly blind. Mr. Harold Speed says, "Light and shade were not seriously perceived until Leonardo da Vinci. And a wonderful discovery it was thought to be, and was, indeed, although it seems difficult to understand where men's eyes had been for so long with the phenomena of light and shade before them all the time. But this is only another proof of what cannot be too often insisted on—namely, that the eye sees only what it is on the look-out for—and it may even be there are things just as wonderful yet to be discovered in vision."\*

Beauty, then, is not a quality fixed; it is something that is always growing in us: our sense of beauty, like science, is always discovering new lands formerly marked in its map as unexplored.

Mr. Speed also shows how a perfect type of beauty cannot exist for long: it would at first excite our wonder, but it would soon leave us cold. He calls our attention to the fact that even the Greeks did not create perfect types. "However near they might go towards a perfect type in their ideal heads and figures, they never went so far as to kill the individual in the type." And so it is in all the arts; if we made a perfect type it would soon become dead. It is the variations from the type that give life; and the state of life means growth or decay, progress or retrogression. Beauty is the variations of the Life Force, variations leading to growth, to progress. If these variations lead backwards they are ugly. If these variations jump too far forward they are also ugly, for it seems that our sense of beauty can perceive beauty only one step ahead.

Beauty, then, is a kinetic quality of the Life Force that draws us onwards.

Does this conflict with Plato's theory of "The one absolute beauty," "The vision of a single science which is the science of beauty everywhere"†?

To me it does not. Plato speaks of him, "who has learned to see the beauties in due order and succession. When he comes towards the end," he explains, "he will suddenly perceive a nature of wondrous beauty, a nature which, in the first place, is everlasting, not growing and decaying, or waxing and waning," and so on. "A beauty absolute, separate, simple, and everlasting." Perhaps our conception of beauty may be compared to our perception of time and space. Primitive man's knowledge of time and space was very little. He existed for the most part in the present, and could count, perhaps, up to five. We can symbolise his consciousness of time and space by an upright line.

Later in his evolution, however, his consciousness extended, he had a knowledge of history. His consciousness may be represented by a curved line becoming broken at one end, showing that he could see only a little way into the future.

At the present time, by the help of science, we are getting more and more knowledge of the past; we are becoming more and more confident of the future, shown

by the numerous Utopias that have been written in the last fifty years or so. No longer do we drift aimlessly along, we are beginning to see the direction of our evolution, and to guide ourselves. This may be represented by a segment of a circle, of which the part representing the future is indicated by a broken line.

There are things in the future of which we are almost certain: eclipses; return of comets; extinction of certain animals; an international language, money, and police force, and so on. Is it not possible that the end of it all will be, after we have seen more and more into the future, and more and more into the past, that the line might become a complete circle?

Time and space will then be one, a conception often spoken of by philosophers. If time and space may be considered in this way, why should not beauty be considered similarly? If it can, then the theory of beauty, being a kinetic quality of the Life Force, is not contrary to the "One Beauty" theory of Plato.

What is the use of this theory for architects? It is this. Let us be on our guard in setting up perfect types for buildings, and perfect types in all the details of buildings. How often do we decide in our minds that a certain bit of detail is perfect. Let anyone go through our ecclesiastical joinery works to-day, and he will find that architects are "designing" the same old Gothic cusps, the same old cresting with its  $\frac{1}{2}$ -in. bead at the tips of the leaves ("That always looks well," the architect tells you), the same moulings, the same old Tudor rose and Tudor foliage. Architects continually repeat these old elements. Why? Because they have set up types of perfection. "You cannot beat the old work," they say. It is useless to tell them that a work of art should be the expression of the artist in the artist's own original way. It is useless to explain that one cannot compare works of art in this way, just as one does not compare the works of the great musicians, or the great painters. Each great painter or musician expresses something not before expressed in his own way. And so it ought to be in architecture. The great architecture of the future will be something new expressed in a new way. Viewed from this point of view, the very worst original work is far better than imitation Greek or imitation Gothic. We can never be absolutely sure that an original work is really very bad, for most advanced work has been labelled ugly when it first appeared.

To sum up: Beauty is a kinetic quality of the Life Force. The greatest sin against beauty is to imitate. Imitation is worse than death; it causes stagnation and putrefaction, and creates disease in art.

## Forthcoming Events.

*Saturday, May 7.*—Royal Institute of British Architects. —Visit to the new London County Hall under the direction of Mr. Ralph Knott. 2.30 P.M.

*Monday, May 9.*—Surveyors' Institution.—Meeting at 12 Great George Street, Westminster, S.W. Paper by Mr. T. A. O'Donahue, F.S.I., entitled "The Valuation of Mineral Properties, with Special Reference to Post-war Conditions." 8 P.M.

*Thursday, May 12.*—Society of Architects.—Meeting at 28 Bedford Square, W.C. 1. Paper by Mr. L. Sylvester Sullivan, F.S.Arc., A.R.I.B.A., entitled "Architectural Education." 8 P.M.

THE Worshipful Company of Ironmongers have appointed Mr. Sydney Tatchell, F.R.I.B.A. (of the firm of Messrs. Bouchier, Tatchell & Galsworthy) as their surveyor.

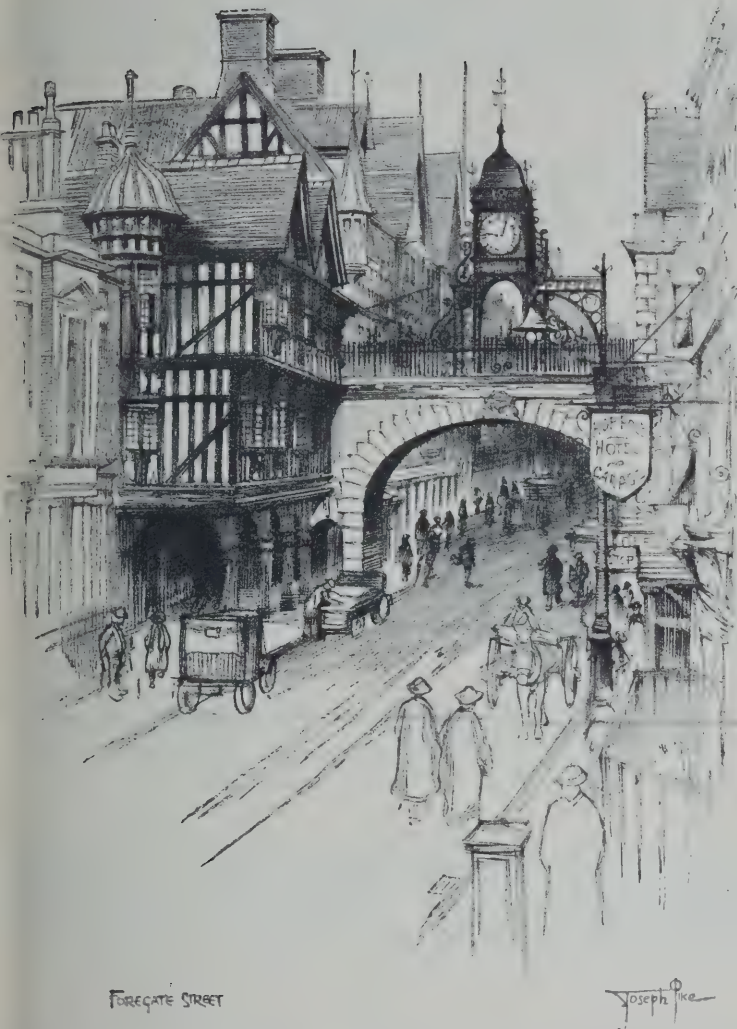
OPINION of counsel is to be obtained as to the London County Council's claim against the Government for stoppage of building at the new County Hall during the war.

At a meeting of the University College of North Wales at Chester recently it was announced that the Quarrymen's Union of North Wales had sent a cheque for £1,000 to establish a series of lectures on political science, local government, and political economy, to be given at the College, and to be attended by fifty members of the Union each three months. The Registrar said that the College was the only institute of that sort that received subscriptions from members of trade unions such as the quarrymen and miners.

\* "The Practice and Science of Drawing," pp. 51, 52.  
† Symp. 201. Trans. by Jowett.



New Books.



FOREGATE STREET

Joseph Pike

"Chester," a Sketch Book, by Joseph Pike. (A. and C. Black, London.) 2s. 6d. net. MESSRS. BLACK have issued an excellent little illustrated book on "Chester" which forms one of their series of Picturesque Towns, and is illustrated by twenty-four pencil drawings made by Joseph Pike, the delicacy and accuracy of which are exceptional. We are inclined to think that of all mediums of architectural illustration pencil-drawings are the best, and we confess to feeling a little tired of the manner in which architects have eschewed them for more or less impressionistic colour renderings. The architect can seldom express a building with due regard for detail in colour, while he usually falls lamentably behind the painter in his rendering of tones and shadow. In Mr. Pike's excellent drawings (one of which we reproduce) detail is indicated, but the medium chosen makes it possible to give effects of light, shade and tone. "The Canal and Bridge of Sighs" is a good example of what we mean, while the view entitled "Salmon Fishing Boats on the River Dee" shows Mr. Pike's mastery of form in delineating that most difficult of all subjects—a boat. The drawing of the Rows, Watergate Street, is very pleasing, and we can only hope that Messrs. Black will extend the series by the inclusion of some of the foreign towns such as Ghent and Malines and the lesser-known and smaller towns of Italy such as Lucca.

Epstein." By Bernard Van Dieren. Illustrated with fifty reproductions, in collotype, of the sculptor's work. (London: John Lane, The Bodley Head, W.) 1920. £2 2s. net.

THE interest roused in Mr. Jacob Epstein's work in recent exhibitions—notably in the important special exhibition, now more than a year ago, at the Leicester Galleries, which included his very remarkable rendering of the figure of Christ—makes the present volume specially valuable and interesting. From the point of view of illustration the selection here made of fifty illustrations is admirable, and really brings before us the original outlook and supreme technical ability of this modern master in sculpture. We find here the "Christ" which we have just mentioned; the somewhat animal conception of "Maternity," as a sleeping female with accentuated breasts and stomach, and a "Mother and child" who suggest almost painfully the supposed development of our species from the anthropoid ape; and, happily leaving these realms of fancy for the portraiture of ordinary mortals, two really admirable head studies of Mrs. Jacob Epstein, the bust portrait of Her Grace the Duchess of Hamilton, and those studies of "Meum with fan," "Bust of a girl" (who seems the same model), "Lillian Shelley," "Betty May," "Iris Tree," and "Lady Gregory," which are well known to admirers of the sculptor's work.

It is quite a question, however, whether Epstein is at his best in male portraits. For likeness, character, and pure cleverness of technique it is a question whether "Admiral Lord Fisher" could be excelled, and very far this we should place his "Augustus John" and his "W. H. Davies": all these are well presented in this volume, together with "The Tin Hat" and "An American Soldier" which we remember picking out for special

commendation in the Epstein exhibition at the Leicester Galleries on the last occasion. Lastly a word of praise is merited by his "Head of a child," given here together with the "Head of Infant" owned by H.M. Queen Alexandra. The artist gets the character of babyhood here, and none of its elusive forms escape him.

We have mentioned these plates in detail to show that this volume really gives a fairly adequate illustration of the artist's creations. The text is less satisfactory; and the writer shows somewhat of an inclination to lecture the reader into submissive acceptance of his views. "If people would only be content"—he tells us in this professorial attitude—"to approach a work of art without preconceived notions, would look at it patiently and long enough . . . it would enter into them when the impression is complete, and the artist's idea would penetrate their minds." The evil is, he goes on to explain "when spectators, starting from the mistaken notion that the sculptor wishes to represent actualities with stylistic modifications, assume they have to detect in the work the representation of a human being, and expect from the artist an explanation." From this point of view we are to take our position, in a humbly expectant attitude—assuming we have the inclination and time at our disposal—before (say) "Maternity," and wait until its inner meaning gradually soaks into our hitherto benighted consciousness. The fault of this line of argument seems to be that it assumes an incapacity on the part of the public of appreciating an artist whom they have discussed—but also long admired. S.B.

MESSRS. HUKINS & MAYELL, architects and surveyors, of 124 Westbourne Grove, are removing to St. James's House, 73 Holland Park Avenue, W. 11. Their telephone number will remain as before—Park 3705.



## Science, Efficiency and Progress v. Stereotyped Building Acts.\*

By A. Alban H. Scott.

It is not my intention to-day to explain how and why the building industry is curtailed by building laws and restrictions in a way in which no other industry in the world is so hampered. Unless one is constantly working under these laws their restrictive nature cannot be realised, or their direct opposition to science, efficiency, and progress.

I feel quite sure that you will agree with me that this is a subject for which no apology is required for introducing, when it is taken into consideration that about sixty districts in England are working with building by-laws confirmed before 1871, some even so far back as 1859. In one town with a population of 150,000 the building by-laws were confirmed in 1867.

To show how urgent even Government Departments consider the necessity for modification, it is desirable to remind you that even so far back as 1909 in one of the Housing and Town Planning Acts the Government inserted a clause that if the erection of houses was unreasonably impeded by building by-laws the Local Government Board had power to require the removal of such by-laws; and immediately the present housing programme was initiated a clause was at once introduced that all building by-laws would be waived. If such a clause is admittedly necessary for cottage construction, how much more is it necessary for larger buildings and building schemes for commercial industries. It is only necessary, perhaps, to give one instance of how carefully an additional restriction should be considered to mention that a short clause in the Housing (Additional) Powers Act, 1919, where local authorities were given power to prohibit any building, or approve of same, subject to special conditions. Certain Councils in allowing buildings to proceed have gone so far as to attach a special condition that no advertisement or name of any description should be placed on any such building at any time.

In this case, as in many cases, it was never the intention of Parliament in passing such a clause to give the local authorities power of this nature.

We have in England approximately 1,600 authorities administering building laws, which means somewhere about 2,000 surveyors, plus building and sanitary inspectors. It will be at once seen how many possible interpretations of the by-laws are possible. Fortunately, in London we have at the present moment great hopes that the building by-laws will be administered in a more humane spirit, with the object of helping to accelerate progress and allowing, as far as the present laws permit, the introduction of new methods of construction.

In many districts throughout the country we find real help and courtesy, but there are still, unfortunately, very many districts where one comes up against a most unaccountable spirit which officials display in exploring every obscure by-law to make quite sure that the building does not offend against some clause which was drafted fifty years ago.

One appreciates highly that broad spirit of helpfulness from the officials that we are now getting from the London area, but even in the very best districts, particularly in our larger towns, there is so much red tape and unnecessary procedure that not only does the actual building cost considerably more, but the cost of administration must be excessive.

As one example of what I have in mind, there is one city which approves under their by-laws a certain form of iron fire-resisting door, and, although for many years past they have approved of another form of door, if it is desired to use this new standard door, a fresh application has to be made with detailed drawings for each case, and

I do not think I am in any way exaggerating in stating that there must be at least 5,000 applications and approvals for the same identically constructed door, with one authority only.

As you know in London, as soon as plans have been deposited with the district surveyor, building operations can commence immediately, but under urban and rural districts they are only compelled to give approval or disapproval within thirty days. This causes a very great wastage of time, particularly when one is anxious to proceed with the building during the summer months, and also gives, in certain districts, the opportunity of waiting until the end of nearly thirty days, when the plans are calmly disapproved, owing to the fact that one small length of drain is not shown as desired by that particular Committee.

Of recent years it has been noticed to a very considerable extent that individual surveyors are agreeable to permit of deviation from certain restrictions which are in force, but they nearly always state that it is extremely difficult for them to allow building owners to depart from definitely laid down regulations. Unfortunately in many of our rural and urban districts these by-laws are actually administered by the members of the local council, their attitude being similar to a smug and pompous Victorian parent regarding the poor child "Building Owner" as something that should wait anxiously and reverently until every obscure by-law has been duly complied with, by which time possibly the industry for which the building was intended to be used has passed away to foreign lands. Unless the building laws are in the very near future made to suit present and future requirements we shall without doubt owe our children our sincere apologies. Cannot we loosen our chains and leave the building industry to develop along scientific lines taking advantage of research, and so bring ourselves into line with the other great industries in the country.

The building industry to-day is in a similar position to that of the motor trade only a few years ago when it was compulsory for a man with a red flag to walk in front of any mechanically-propelled road vehicle. When one realises the progress made in the motor world—to-day I believe nearly one million mechanically propelled road vehicles are in use—one foresees that, if after the red flag is removed from building, progress is made at only half the relative rate, those who are advocating these revisions will be more than satisfied.

In the past this very dry subject of building by-law has been more or less confined to the technical world but it is necessary that the building owners and the public generally should realise that they are the people who actually suffer in the end.

It is contended that we must make our building laws so that every advantage can be taken of our progressive scientific knowledge. Some opponents to the radical alteration of by-laws suggest that our present by-laws can be amended from time to time. When one remembers that it took a certain large city about five years to get an important regulation through to its final conclusion I do not think that we can put much hope in this method.

The regulations governing the construction of building must be elastic and capable of the practical application of our latest knowledge. It is suggested that, as there is opposition to the cancellation of the by-law altogether, these should be left exactly as they are, and a special short one or two clauses Act should be passed making it compulsory throughout the whole kingdom to have still another by-law as follows:—

"That, notwithstanding anything to the contrary in any of the Building Acts, by-laws, or regulations in force, it is permitted for a building owner to construct any building of any form of construction, and any material provided it is proved to the reasonable satisfaction of the local surveyor that the method and materials proposed are of sufficient strength and the structure of sufficient stability to perform the work intended. In all cases such work shall be designed on recognised

\* A paper prepared for presentation at a luncheon held at Olympia on April 19 by the Concrete Institute. It has been requested that it should be specifically pointed out that the views expressed are the author's individual views only, and are not necessarily the views of the Concrete Institute.



**CONCRETE BLOCKS "KING" PLASTER SLABS**

**WALLS PARTITIONS ROOFS**

**FIBROUS PLASTER CEILING SLABS**

*Ferro-Concrete and Glass Constructions*

**"FERRO GLASS" PAVEMENT LIGHTS**

**"KING" CONCRETE GLAZING BARS**

**A. KING & Co.**

181, QUEEN VICTORIA ST., LONDON, E.C., and  
BRITANNIA BUILDINGS, LEEDS.

Tel: City 2213 and Cent. 773, and Leeds 22712.

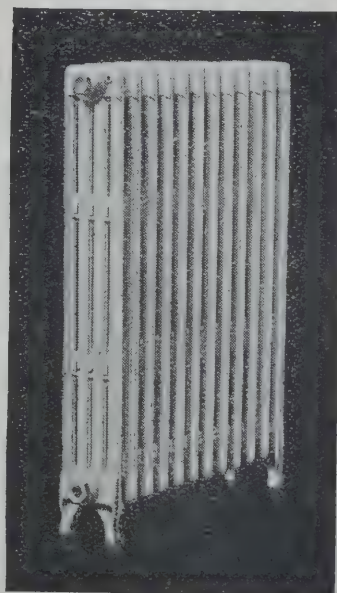
**Prompt Delivery & Reduced Prices.**

Ideal Radiators and Ideal Boilers in practically all current patterns can now be supplied promptly from stock, including all heights of Ideal Classic Four-Column Radiators.

Considerable reductions have been made in prices of nearly all goods and especially in the lower heights of Ideal Radiators which are most in demand for residential work.

**IDEAL & IDEAL**  
RADIATORS BOILERS

Ideal Classic Radiators are distinguished by their graceful fluted columns which harmonise with the most artistic surroundings; they occupy thirty per cent. less floor space than other patterns, require only half the water contents and are highly efficient.



**NATIONAL RADIATOR COMPANY**  
LIMITED.

Offices, Showrooms & Works: HULL, Yorks.

Telephone: Central 4220. Telegrams: "Radiators, Hull."

London Showrooms: 439 & 441 Oxford Street, W.1.

Telephone: Mayfair 2153. Telegrams: "Liablencss, London."

Agents in Great Britain carrying stocks of "Ideal" Radiators and "Ideal" Boilers:

axendale & Co. Ltd., Miller Street Works, Manchester.

William Macleod & Co., 60-64 Robertson Street, Glasgow



engineering formulæ. If there should be a difference of opinion between the building owner and the Local Council on any point under this by-law, such difference shall be referred to a Tribunal (which should be appointed by the Ministry of Health), and the decision of this Tribunal shall be final and binding on all parties." There would also have to be provision made that reasonable precautions are taken against fire risks and reasonable sanitary requirements maintained. At the same time a clause should be inserted dealing with the question of building frontage lines, this more particularly being an urgent necessity in districts outside the very large towns. In making an application to the Tribunal I think it will be necessary that both the building owner and the Local Council should deposit a sum of, say, 10 guineas each to prevent frivolous applications. It should also be in the power of the Tribunal to withhold the return of such deposit to either or both parties, and this would have the effect that no building owner and no local surveyor would allow application to be made unless there was some genuine feeling that it was a case for such appeal.

In putting this scheme forward consideration has been carefully given to the fact that no additional expense would be incurred in supervision, and, indeed, it would eventually mean that there ought to be a reduction in the staff of the Administering Architects and Surveyors.

It has been suggested by one Government Department that if such a tribunal was instituted it would be snowed under with applications. I beg to submit that if such a condition did arise this itself would be the strongest point for making our building laws more elastic. Also the same department asked if any other country had taken the step suggested above. I have yet to learn that it is Britain's place to play second fiddle to any other country in the development of its industries. We must give that freedom to the building world which is its due.

In certain quarters it is contended that the above method is not the easiest one to overcome the admitted troubles, and I think it is very desirable that the method chosen should be that which will give the line of least resistance in obtaining our object, and a possible alternative method would be to make it possible for the Ministry of Health to have power to require the cancelling or modification of any by-law, if they were satisfied that it had become unreasonable or if it did not secure the object for which it was intended.

I am quite aware of the fact that in London, for instance, the Superintending Architect has power to waive certain clauses in his discretion, and it is a very great pity that these waiver clauses are not more frequently made, but it is also startling to find that the L.C.C. in forming regulations can, according to their ruling, override the waiver clause given by Act of Parliament.

There is no institution or association more capable of realising the remarkable progress with concrete during the last few years than the Concrete Institute, and when the greatest city in the world is working under by-laws more than forty years old regulating concrete, I think it is hardly necessary for me to put the case any stronger as a preliminary appeal for consideration for allowing the building trade to obtain that freedom which is vital to development.

THE Council of the Institution of Civil Engineers have made the following awards for papers read and discussed during the session 1920-21: A Telford Gold Medal and a Telford Premium to Mr. George Ellson, O.B.E. (London); Telford Gold Medals to Sir Murdoch MacDonald, K.C.M.G., C.B. (Cairo), and Mr. T. E. Stanton, C.B.E., D.Sc., F.R.S. (Teddington); a George Stephenson Gold Medal to Mr. R. G. C. Batson (Teddington); a Watt Gold Medal to Mr. S. A. Main, B.Sc. (Sheffield); Telford Premiums to Mr. Algernon Peake (Sydney, N.S.W.), Mr. L. H. Larmuth (London), Mr. H. E. Hurst, M.A., B.Sc. (Cairo), Professor T. B. Abell, O.B.E., M.Eng. (Liverpool), and Mr. Percy Allan (Sydney, N.S.W.). The Council further record their appreciation of the paper contributed (jointly with Mr. Main) by Sir Robert A. Hadfield, Bart., F.R.S., a member of the Council. The awards for papers published in the Proceedings without discussion will be announced later.

## English Forestry Association Trading Scheme.

THE annual meeting of the members of the English Forestry Association was held at the Surveyors' Institution, Westminster. In the absence of Colonel G. L. Courthope, M.P. (the President) who was detained by military duties, the Earl of Plymouth occupied the chair. After Mr. M. C. Duchesne had submitted a financial statement, which was unanimously adopted, Mr. J. Corbett, the Secretary, explained that it was proposed to wind up the present Association and start a new one in which he was certain would have a great future. The new Association would be registered as a trading society. On a voluntary basis it was impossible to reorganise Forestry and to persuade the owners of woodlands to replant areas which had been cut down for the war. Seedlings, transplants, and other requirements incident to Forestry must be available at the lowest possible cost. Their present stocks of seedlings and transplants, which would be available next winter, were sufficient to reforest 3,600 acres. This was a good beginning, and they hoped to considerably increase the number in future years.

At the present moment few big dealings in timber could be effected without the payment of unnecessary commissions between the consumer and the producer. One of the principal objects of the Association would be to eliminate "unnecessary" middlemen's profits, and he had every confidence that that would be the result of their work.

The Chairman moved the adoption of a series of resolutions for giving effect to the conversion of the Association into a Co-operative Trading Society, fixing the subscriptions of members, and the holdings of shareholders. A strong and representative Committee of Management was appointed with Lord Plymouth, President and Colonel G. L. Courthope, M.P., as Vice-President.

Lord Lovat (the Chairman of the Forestry Commission) said that the most important part of the National Forestry programme, which was being carried out, was the encouragement of the private landowner to continue planting. The Reconstruction Committee had laid it down that for the safety of the country in time of war or in periods of emergency it was essential that there should be 5,000,000 acres of woodland, and of this area it was hoped that at least 3,000,000 acres would be made good by the private planters. As Forestry Commissioners they desired to work in close harmony with the English Forestry Association; and they looked to the Association for assistance in reducing the cost of planting to owners. In the help that the Commissioners could afford to owners they were strictly tied down by statute, the figures being based on what were practically 1914 prices.

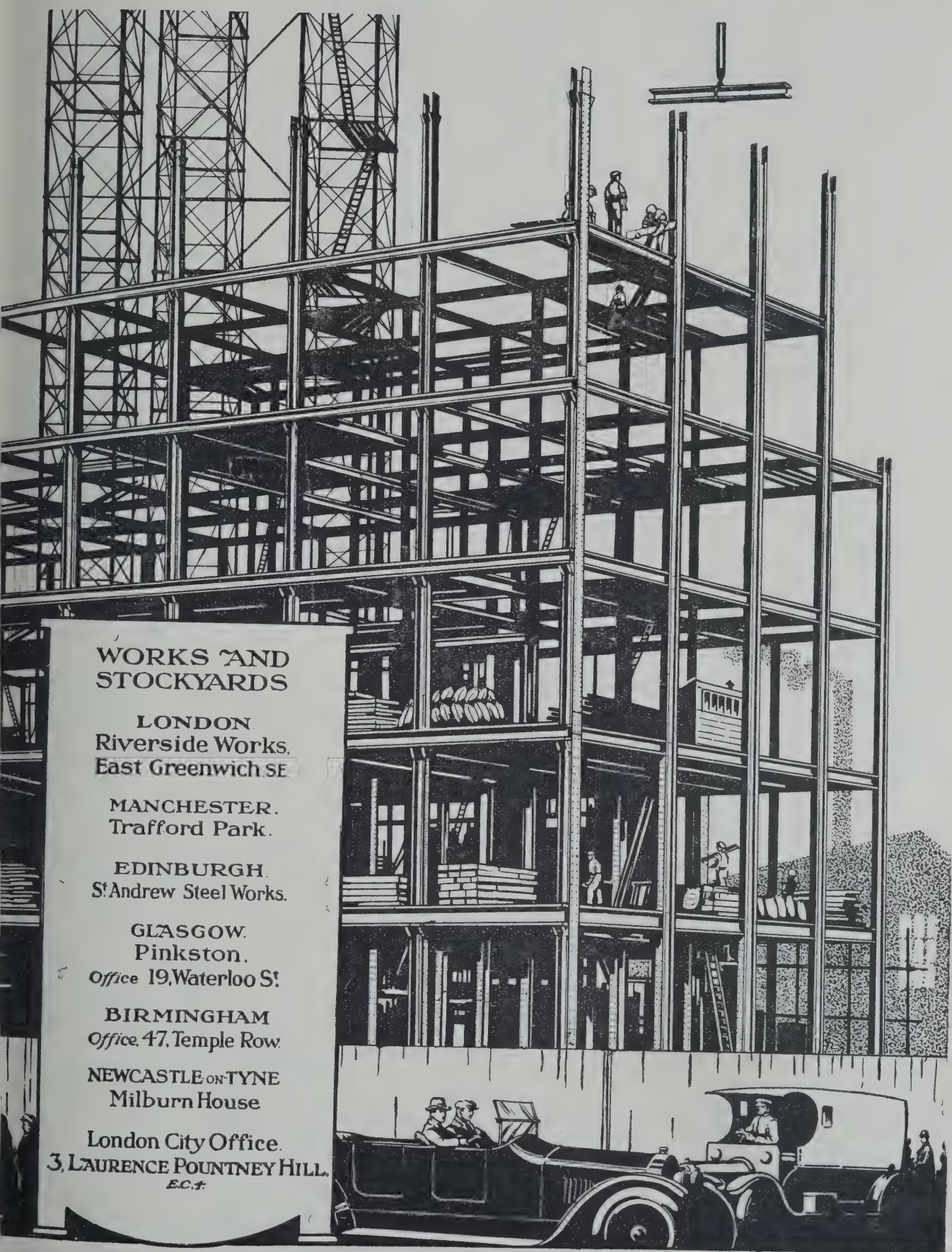
Mr. Duchesne mentioned that the question of issuing from time to time a bulletin, containing information and advice respecting the sale of timber and other matters relative to the Forestry industry, would be taken up by the Executive of the Association at the earliest possible moment.

It was stated that arrangements had been made for extensive exhibits of timber products at the "Royal" (Derby) and Bath and West of England Shows, by which means it was hoped to convince the general public that English timbers could be, in many cases, substituted for foreign with advantage to all concerned.

At a meeting of the Brandon and Byshottles (Durham) Urban Council on Monday last it was reported "that building of between 300 and 400 houses had been contracted for, and the fees claimed by Mr. Robson for performing the duties of architect and quantity surveyor amounted to £13,290." The chairman described this as "a staggering figure," he said, were calculated on the houses now contracted for, and would be increased when more contracts were let. The Clerk stated that the Council were spending a quarter of a million, and the architect was allowed 10 per centage. It was decided to communicate with the Housing Commissioner.



# REDPATH BROWN & CO., LTD. CONSTRUCTIONAL ENGINEERS



WORKS AND  
STOCKYARDS

LONDON.  
Riverside Works.  
East Greenwich SE.

MANCHESTER.  
Trafford Park.

EDINBURGH.  
St Andrew Steel Works.

GLASGOW.  
Pinkston.  
Office 19, Waterloo St.

BIRMINGHAM  
Office, 47, Temple Row.

NEWCASTLE-ON-TYNE  
Milburn House

London City Office.  
3, LAURENCE POUNTNEY HILL.  
E.C.4.



## Grants to Private Builders.

THE following memorandum issued by the Ministry of Health and dated April 28 should set at rest the fears of those who have been questioning the possibility of the subsidy being discontinued:—

In General Housing Memorandum No. 41 which was issued in December last, local authorities were notified that in consequence of the rejection of the Ministry of Health (Miscellaneous Provisions) Bill, it would not be possible under the existing law to pay the full amount of the subsidy under the Subsidy to Private Builders Scheme in respect of houses completed during the early months of 1921, and that it would be necessary for local authorities to discontinue the issue of Certificate A as from December 23. An undertaking was, however, given on behalf of the Government that legislation would be introduced at the beginning of the present session of Parliament to provide for payments in full to those completing houses between December 23, 1920, and the date of the coming into operation of the new Act, and to extend the period during which the subsidy can be earned. In accordance with this undertaking the Government have introduced a Bill for the purposes above mentioned, and it is hoped that this Bill will become law at an early date. In the meantime local authorities will, of course, have no authority to issue Certificate B in respect of houses completed after April 23, 1921. Local authorities should, however, examine any applications which are made for the issue of Certificate B, and if they are in order should inform the applicant accordingly, and that Certificate B will be issued as soon as Parliament has granted the necessary powers.

## General.

THE Hull Education Committee has agreed to purchase two fields abutting on the Cottingham Road, containing a total of nearly twelve acres, as a site for a new technical college. The price is £500 per acre.

THE Executive Committee of the Welsh National Memorial to Thomas Charles Edwards, the first Principal of the University of Wales, has engaged Sir W. Goscombe John, R.A., to design and erect a bronze statue of the Principal, which will be placed on the sea front within the grounds of Aberystwyth College. It is hoped to unveil this at the end of June. The cost is estimated at £5,000.

THE April bulletin of the National City Bank of New York states that there is opportunity for a vast amount of house building over the United States, which would give employment to thousands of skilled mechanics in the building trades and many thousands more in all the building material industries, and would bring about a general reduction of rents and improvement in living conditions. "Such a revival of house-building," the bulletin adds, "would quicken all the trades and industries, and go far in tiding the country over the period of depression which the world is bound to experience until Europe recovers from its state of prostration. But there will be no general revival of house-building upon the present level of costs, because the public cannot pay rents upon that level of costs. And that is only one of the dislocations which must be overcome before there can be a general revival of industry."

THE position of ex-Service men in the building industry, following the agreement arrived at between the Government and the National Federation of Building Trades Employers to accept those men for two years at reduced wages with a State grant, is explained in the following information issued by the National Federation of Building Trades Employers: The scheme of employment was completed on April 13, and April 18 was chosen as the earliest date at which a beginning could be made. It was found necessary to set up district committees throughout the country, and these have been appointed by regional federations, who have now issued their instructions. Applications for employment by ex-Service men are made to the Labour Exchanges, and these are now being forwarded to the district committees. In the course of a week or two the scheme should be in operation throughout the country.

## Housing News.

THE Berwick Town Council have decided, on the advice of the Housing Commissioner, to break their contract for the new housing scheme in view of the falling cost of building materials. The original contract was for sixty-eight houses, only twenty-two of which will now be erected. The twenty-two houses have all been let.

In the House of Lords last week Viscount Burnham (U.) asked whether it was intended to continue in any form the power given to local authorities to prohibit building except under licence, and, if not, when the present restrictions would be removed. They had lessened the efficiency of the building industry, and had led to wide unemployment, and would soon lead to much more. Both masters and employees in the building trade were anxious for the regulations to disappear. The Earl of Onslow (Parliamentary Secretary, Ministry of Health) replied that the section prohibiting luxury building was introduced because at the time there was a difficulty of obtaining labour for housing schemes. It would only continue in force for two years from the passing of the Act. The Housing Bill now before Parliament would afford an opportunity for considering the future of these restrictions, and if an amendment was proposed to abrogate them from the passing of the new Act it would receive the most sympathetic consideration of the Ministry of Health.

At a meeting of the Housing Committee of the Manchester City Council last week it was announced that 2,460 workmen are engaged on the Corporation's housing scheme compared with 1,300 in the middle of January last. It is estimated that even if the number of workmen employed by the Corporation were increased to 4,000 local housing requirements could not be met in anything under six years. During the last two months a hundred houses have been finished. It is hoped that in the immediate future the number of men engaged will be increased to 3,000, and, sufficient plasterers can be obtained, a weekly output of from thirty to forty houses is looked for. The Corporation's Housing Committee have informed the Ministry of Health that, having regard to applications already received, it is absolutely essential that at least 10,000 houses should be built within the next three years. They request the Ministry to give their sanction to this proposal and to authorise the work to proceed without regard to July 1922. A contract has been let by the Corporation to a Barrow firm for the erection of 300 houses, and the contract with the Building Guild has been extended by 100 houses, subject to the approval of the Ministry.

## Trade Notes.

J. C. KING, LTD., 42-60 Goswell Road, E.C. 1, have sent us samples of a few of their lines as printers, stationers and account-book manufacturers. Several of these are prepared for use by those engaged in the building trade, whom Catalogue No. 60 should particularly appeal as containing particulars of useful business systems, prime-cost books, State insurance wages books, abstract books, contract books, and many printed standard stock wordings for everyday use. King's also have time sheets, pay lists, cash vouchers, specification forms, material sheets, variation contract and extra work forms, combined time, wages, and National Insurance record sheets in stock—ready for immediate use. Messrs. King hold that "method is the very hinge of business," and they are prepared to supply a kind of such hinge.

THE thirty-third ordinary general meeting of Bell's United Asbestos Co., Ltd., will be held on May 12 at the Cannon Street Hotel, London, E.C., at 2 p.m. The report shows the result of the year's operations is a net profit of £64,670, to which has to be added £26,046 brought forward. After deducting interim dividends there is £77,938 left for appropriation. The directors recommend: (1) The payment of a dividend on the Ordinary shares of 1s. 6d. per share, which, with the interim dividend, makes a total distribution of 12½ per cent. for the year; (2) that the sum of £20,000 be placed to depreciation reserve; and (3) that £34,124 1s. 1d. be carried forward. A substantial sum has been reserved towards liabilities for Imperial taxes. The demand for "Poi-lite" was well maintained considering the general state of trade. The new extensions at Harefield in connection with the manufacture of the new "Hurcal" slabs are now in operation, and the new products have been favourably received by public authorities and architects.



## CONTENTS.

How Not to Decorate . . . . .	PAGE 339	Art News of To-day . . . . .	PAGE 342
Illustrations . . . . .	340	Sculpture at the Royal Academy (Illustrated) . . . . .	343
Notes and Comments . . . . .	340	Architecture and Travel . . . . .	344
Proposed National War Memorial . . . . .	341	Thatch.—II. (Illustrated) . . . . .	346
Forthcoming Events . . . . .	341	Royal Institute of British Architects . . . . .	350
Competition News . . . . .	341	"The Architect" Fifty Years Ago . . . . .	350
London Art Galleries . . . . .	342	National Wages Council Award . . . . .	352

## How Not to Decorate.

NEVER, probably, since the Great Fire, has London seen such an outburst of painting and decoration, in the limited sense in which the latter word is known to builders, and never have the results of individualism been more conspicuous. We pass along a pleasant road in Kensington, with houses detached and semi-detached, set in their own gardens, never more beautiful than now, when lilac and double cherries are in blossom of unusual perfection, when we are brought up short by a melancholy sight. Two houses are designed as one, with a common pediment and four stately pilasters; but one has been repainted a bright grass green. Half the pediment is green, half the ordinary stone colour; one of the outer pilasters is stone, its complement grass green; and the effect of the contrasted inner pilasters, only a few feet apart, is even more disastrous. Had the owner been contented with his neighbour's colouring, a year or two would, in our smoky atmosphere, have seen an approach at least to harmony; now "East is East and West is West, and never the twain can meet," and the pediment and pilasters will clash until one owner or the other consents, *pro bono publico*, to modify his colour scheme. A little further on is a single house, distinguished from its neighbours by a profusion of useless corbel-heads and keystones, and what may be called drain-pipe ornament, an infinite interlacing of circles on balconies and window-sills, the only hope for which, short of removal, is unity of treatment with a view to rendering them as inconspicuous as possible. But it has not got it; instead, the bulk of the plaster is painted a harsh blue-grey, with the "ornaments" picked out in white. The result is so painful, so strident, that the architecturally-minded passer-by is filled with an unholy desire to have at the whole thing with a pot of whitewash, of stonewash, of anything, and forcibly to minimise the effect of stare and glare. Another case: A row of houses in a neighbouring thoroughfare is of a pleasant stateliness; but among the stucco-faced houses of that unpretentious stone colour which suits them best is one façade of dull peacock blue, attractive in itself, but utterly unsuitable for its situation as one of a row of uniform façades. In the country, of course, things are very different. Few places are prettier than St. Aubin, as those who have visited the Channel Islands realise, and it owes its charm to the low houses nestled on a green cliff above a little harbour, each colour-washed in unpretentious fashion. Here is a rich cream colour, here a grey blue, here a pale green, and here a warm Venetian red, but were the houses uniform, how terrible the results would be! Individualism, as Baron Haussmann long ago discovered, is out of place in a street, however charming in a village, and it is the Englishman's innate desire for his own house as distinct from other people's that is ultimately responsible for the urban

failures of modern domestic architecture. He cannot realise that what he desires and does in the way of decoration can matter to other people. Nor did it when England was an agricultural nation; but in proportion as the Englishman has become a city dweller he desires to emphasise the fact that he is still in his own house and free to give his own taste full play, let his neighbours do what they will.

So, too, in the matter of shops. The tradesman thinks in terms of his own trade; the display of his own goods is what interests him, and, while his taste in lettering and plate-glass windows has full play, the street may suffer as it will. To be unlike his neighbours, to attract attention—these have been the be-all and the end-all of the average trader's views. True, in this there are refreshing signs of change here and there; the character of an old house is jealously preserved as an asset by the intelligent; an interesting building is discovered to be a source of attraction to a public interested in the antique, but, even so, the effect may be spoilt by unsuitable lettering, especially in the case of a multiple firm which looks on uniformity in this respect as its sign-manual; and the remedy is hard to suggest.

We are tired of committees in England, of public bodies generally, and the setting-up of local Committees of Taste would be, to many, a remedy worse than the disease. Yet it is undeniably hard that the civic and creditable pleasure of enjoyment should be denied to those who use our roads by the vagaries of individual house-owners. The question is, of course, enormously complicated by the varying conditions of tenure in London houses. Here the owner of a freehold decorates when and if it suits himself; here his lease-holding neighbour abides by his statutory obligations and repaints, also as he pleases, every seven years. Unity of action is therefore impossible, but the realisation of an obligation to the public, to one's neighbours, might do much to give a lead. Give the individual householder a sense that he owes something to his fellow-citizens, even in a personal matter like house-painting, and ten to one he will accept the position. It is, like so many other things, a matter of taste, and taste may be—nay, is—capable of improvement. Lord Byron wrote his name on the walls of the Castle of Chillon; it is impossible to conceive the Poet Laureate doing anything so vulgar. Greek mercenaries scratched their names on the Pyramids of Abou Simbel; but if their generals did so then, they would not do it now. Taste is, as we have said before, a thing which can be, and is, improved. We have only to compare the Jubilee memorials of 1887, the Crimean monuments of 1857, with the memorials erected to King Edward and the Cenotaph at Whitehall, to realise how rapid that improvement can be. Tell people that, in matters of taste, they have a duty to their neighbours, and the idea will take root and spread and bear fruit abundantly. In another twenty years we shall find fewer eyesores, fewer examples of How Not to Decorate, even among that most individualistic of classes—the British householder.



## Illustrations.

PROPOSED WAR MEMORIAL AND CAMPO SANTO, WESTMINSTER ABBEY. WM. WOODWARD & SONS, Architects. (See page 341.)

NEW PARISH CHURCH OF S. JOHN, WALTHAMSTOW, ESSEX. MR. H. P. BURKE DOWNING, F.R.I.B.A., F.S.A., Architect.

ILLUSTRATIONS OF THATCHED BUILDINGS. See Articles by CHARLES G. HARPER.

## Notes and Comments.

## The Westminster Chimera.

MAJOR PAWLEY is apparently actively pursuing his immense schemes in the Westminster district, and, while we admit that there is room for much reconstruction and improvement there, we feel that the main lines on which such improvements should be effected are matters for the consideration of a great public authority rather than of any association of private persons, while the filling-in of the details of the picture are equally matters for private enterprise. It is, we think, for the London County Council, in conjunction with the Westminster Council, to consider whether any new alignment of streets is desirable and if necessary to enter into negotiations with the owners of property concerned, in other words we do not want to see one of the historic districts of London treated as if it were a suburban building estate. Of Major Pawley's great Memorial Shrine it is impossible to speak seriously. How any committee of influential men can be found to gravely discuss it we cannot imagine! The crowds which Major Pawley imagines visiting its seventy-eight chapels would be non-existent, except for a few weeks or months, even if the folly of the public led to the erection of such a monstrous "folly." The Abbey, which is so closely interwoven with centuries of English history and the traditions of our race, is rarely filled with visitors; and it needs colossal conceit on the part of any man to imagine that a brand new building of whatever size will prove a greater attraction to Englishmen than Westminster Abbey. But it is perfectly easy for Major Pawley or anyone else to pay draughtsmen, designers, and model makers to show us visions of buildings, which would contain any of our greatest works surpassing them in height or size, and this when all is said is what has been done.

## The Building Trade.

WE are glad to note that the builders and the building crafts have come to an amicable settlement as to wages reductions without necessitating the costly expedient of strikes or lock-outs; and we hope that the outstanding difficulties over dilution of labour will be satisfactorily solved. As to the last it must be borne in mind that the situation would never have become as acute as it is if the building crafts—and especially the bricklayers—had given a better measure of output. For, without saying that every bricklayer should lay his 1,000 bricks a day, there is little doubt that the average output might have been doubled without detriment to the worker, and had this been the case the demand for dilution might never have arisen. As it is we can quite sympathise with the men's fear of periods of unemployment, though in view of the immense arrears of building work and its cost we think unemployment would only have arisen from the high cost of building—a necessary consequence of slack output. Although we seem at present far from so sensible a system, we believe that the adoption of a very moderate minimum standard wage, calculated on the value of the indifferent workers' production, plus ample allowances for increased output and more highly skilled work beyond that, is the really satisfactory solution for all parties. It is possible that necessity and suffering will in the end render the adoption of such a system acceptable to all, but it is a thousand pities that such a desirable state cannot come about through the force of reason and logic rather than by more painful processes.

## The Port of London Building.

WE give below an excellent appreciation of this fine building from an architect whose critical judgment we entirely endorse. No more successful modern building has been erected for many years, but the fact that it stands on the eastern edge of the City of London has resulted in its attracting less attention than is usually accorded to a building of its size and importance. Now that the scaffolding is removed the effect of the central feature over the entrance can be appreciated, and nothing could be better than the manner in which the successive diminishing stages have been designed. Such a feature is a severe test for any architect, and Mr. Cooper has succeeded where it was very easy to fail and has given the utmost dignity and impressiveness to his design. The motive is very much more appropriate than any domical treatment would have been. We hope that it may be found possible to rearrange the garden in Trinity Square as by a little readjustment of boundaries it would, we believe, be possible to so replan it as to give a better prospect of the Port of London's buildings without diminishing the total area of land "dedicated to the public." It might also be possible with little sacrifice to arrange a clear vista through the gardens to the main entrance of the new buildings, which, as seen from the south-east, are now largely hidden by foliage. In these matters what is requisite is wise reconstruction rather than destruction. The following description of the whole conception is one which we can entirely endorse, as we are of opinion that in succeeding centuries this fine pile will rank among our great historic buildings with which it need not fear comparison: in our veneration for the past—both real and simulated—we often lose our sense of justice to those in our own generation:—

"From the parapets of London Bridge may be seen from the great timber structures that there is much activity in building operations.

Prominent among these is the large building for the Port of London Authority, in Trinity Square, hitherto only conspicuous as a mass of scaffolding, but now cleared to the view of the passer-by.

This is one of the few buildings on a really grand scale that we have seen in the present century, and time may serve to cast the period yet further back.

The building is of Portland stone, and, briefly, its plan consists of a square, with one angle, facing the river and seawards, truncated and forming the principal façade, over which rises an immense composition of sculpture and masonry.

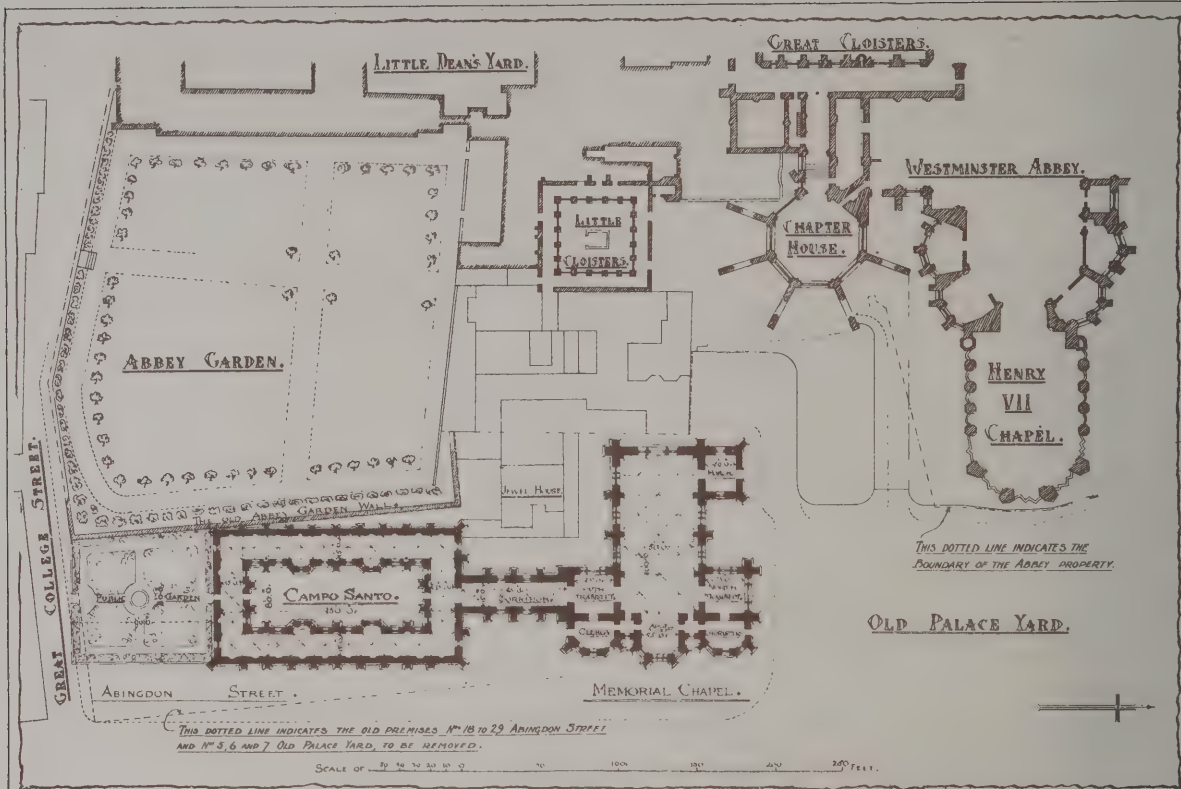
The prospect of the building from Trinity Square is one of great power and domination, and has a clearly defined key, which is "Power," and has not been achieved by mere bulk, but by success in effecting a precise inter-relation of components and a convincing modulation throughout the treatment of its great masses and surfaces to that elusive end called "scale."

The design has been conceived and carried to a conclusion with great courage and consistency, and there is a noteworthy absence of that distressing uneasiness or wavering which is only too apparent in some of the greater architectural undertakings of recent times.

The Port of London Authority have, it is true, provided themselves with a home suitable for their great administration—but the greatest credit is due to those who saw fit to give us as well a monument—a definite handing down of a tradition in architecture—a building conservative enough to satisfy those who look for the historical link, and individual enough to manifest the ability of the architect of to-day to evolve from a complex modern problem a building bearing the personal stamp."

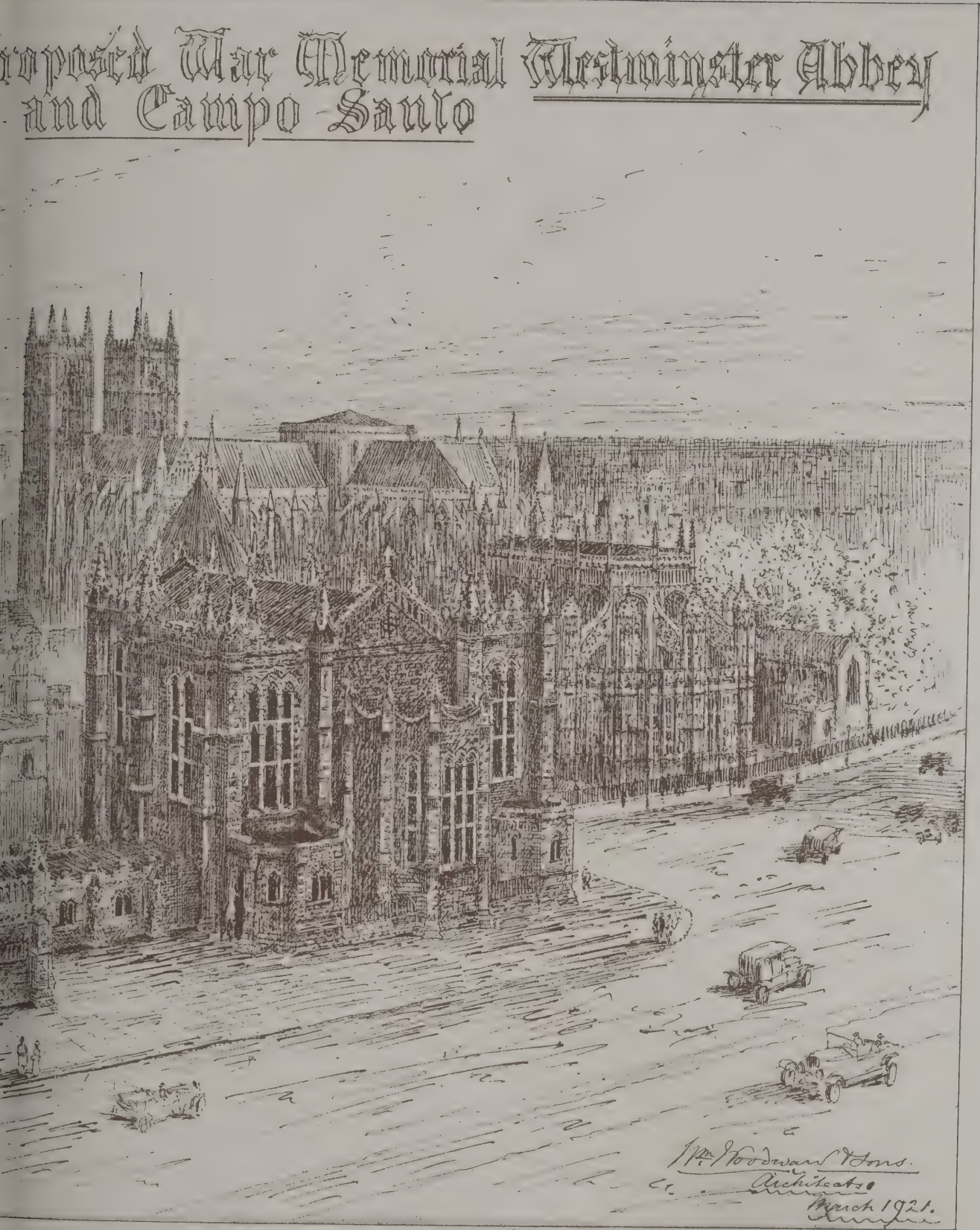








13th, 1921.



SCREENLESS PHOTO PROCESS, SPRAGUE-HAYCOCK (PRINTERS) LTD. 69 & 70, DEAN STREET, LONDON, W.1.

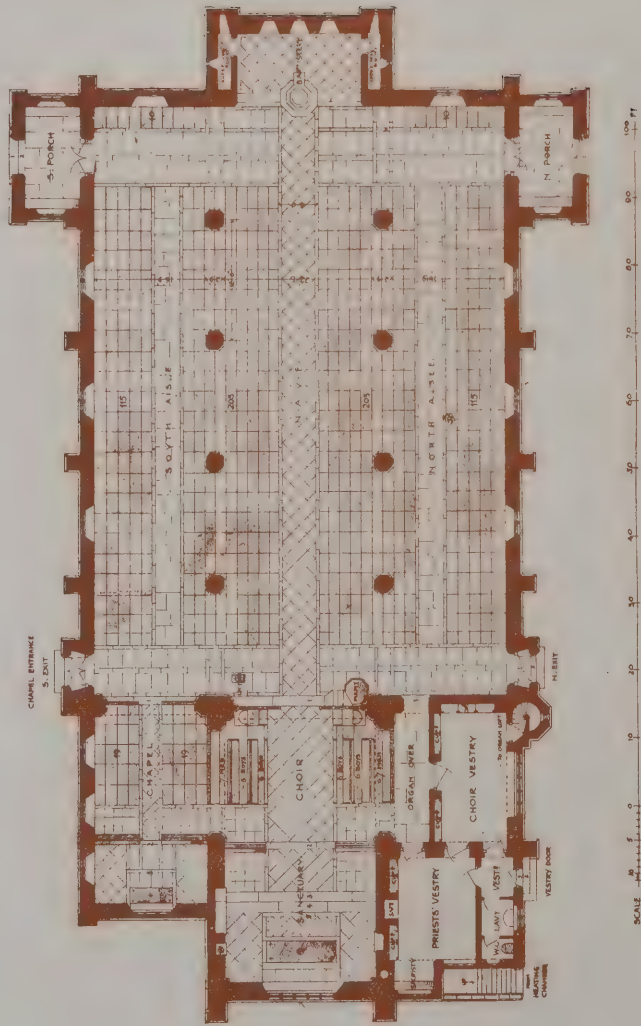
WESTMINSTER ABBEY AND CAMPO SANTO.  
CT8.







THE ARCHITECT, MAY 13th, 1921.







*S. John's Parish Church  
Walthamstow*

*By Order of the Vestry  
12 Little College St.  
Walthamstow Abbey, Essex*

SCREENLESS PHOTO PROCESS, SPRAGUE-HAYCOCK (PRINTERS) LTD, 69 & 70, DEAN STREET, LONDON W.1.

NEW PARISH CHURCH OF S. JOHN, WALTHAMSTOW, ESSEX.

MR. H. P. BURKE DOWING, F.R.I.B.A., F.S.A., ARCHITECT.









BERE REGIS.



UPPER BOCKHAMPTON, NR. DORCHESTER.







PORLOCK WEIR.



BIRTHPLACE OF THOMAS HARDY.



THATCHED CHURCH, INGORTH, NORFOLK.

ILLUSTRATIONS OF THATCHED BUILDINGS.  
SEE ARTICLES BY CHARLES G. HARPER.





## Proposed National War Memorial. A Chapel; a Campo Santo or Cloister, and a Public Improvement at Westminster.

(See Inset Illustrations.)

THE Nation, I am sure, is unanimous in the view that some worthy building should be erected in honour of those who have fallen in the war, some place to which we could converge, for all time, to contemplate the memorials of those heroes who have died to uphold Right against Might, and we "want their memory kept fresh, to perpetuate, until distant ages, their honour and glory."

Various suggestions for the erection, throughout the country, of war memorials, have been made, many of them excellent, but, in my opinion, there should be a great Central Memorial erected, commensurate with the wealth and feeling of the Empire, and it should represent all that is best in the arts and in the craftsmanship of to-day.

There is only one spot in the kingdom which lends itself so appropriately to such an object, and that is the sacred precincts of Westminster Abbey.

It has been agreed by the authorities that there is no more room for burials, or monuments, in the Abbey, and there is, unquestionably, a keen desire to provide some structure, connected with the Abbey, in which memorials to our heroes, statesmen, and others could be perpetuated.

This necessity had come prominently forward in 1890, when in that year, and in 1891, a Royal Commission was appointed to "inquire into the present want of space for monuments in Westminster Abbey," and the proceedings of that Commission, as set forth in the Blue Books, form very interesting reading to-day.

The then Archbishop of Canterbury, in giving evidence before the Commission, said that the suggested memorial chapel "should be a sacred building, that it should be sacred in the sense that it should be possible to be used for services, like the rest of the Abbey, as any of the chapels might be."

The Commission, in its final report, favoured the scheme which had been put forward some time before by Sir Gilbert Scott, and that scheme embraced the sweeping away of the whole of the Abingdon Street houses, and the erection on the site of a Cloister, or Campo Santo, to the south of and in a line with the old Jewel Tower. I am not aware that Sir Gilbert Scott made any plan of his proposal, but his general idea is quite clear.

For many years past I have considered this question of a fitting place for those future memorials, and during the last two years I have devoted myself to the designing of a memorial chapel, &c., on the site of these Abingdon Street houses, one which should embrace all that is noble in the arts, and which should be, in every way, worthy of the great and solemn object in view, and I have now revised my original design, both in plans and elevations.

The scheme involves no interference whatever with Abbey property, being entirely outside its boundaries. The site can be easily acquired. The houses Nos. 1 to 29 Abingdon Street are the property of the Ecclesiastical Commissioners, but they do not own, I understand, the houses Nos. 5, 6 and 7 Old Palace Yard, which are nearest to the Chapter House, and which should also be removed. None of the houses are of any architectural or archaeological value. The removal of the Abingdon Street houses would open up to public view the ancient Jewel House, and the trees in the fine old Abbey garden, all now hidden away, and the scheme would complete the public improvements which have, at great cost, recently been made at Millbank, in the vicinity of the Victoria Tower.

The plan shows the proposed chapel with its surroundings, the Campo Santo, or Cloister, the public garden at the southern end of the site, the thirteenth-century Chapter House, Henry VII. Chapel, the Jewel House, and the Abbey Garden, the fine old rubble enclosing-wall of which being left standing. The suggested cloister would be of stone, vaulted like the Great Abbey Cloister, and as this war memorial would be for all those of our

kindred who have fallen fighting on behalf of Great Britain, it might be that one of the walks would be devoted to memorials of our Colonials, and Indians, and another to Americans, who have so gallantly taken their share in the war.

The height of the cloister would be about twenty-five feet, so that it would not obscure the view of the Memorial Chapel from the south, nor the trees in the Abbey Garden.

It will be seen by the plan that visitors perambulating the Abbey could pass out of the doorway at Poets' Corner, under the flying buttresses of the Chapter House, across the lawn into the Memorial Chapel. From the south transept of the chapel a vestibule leads to the Cloister, from which there might be an exit direct into Abingdon Street, or into the public garden at the end of the Cloister.

The chapel would provide for memorials to all the heroes who have fallen in the war, on sea, on land, and in the air, not forgetting the glorious deeds of the women; in fact, a "Valhalla," a "Palace of Immortality, inhabited by the Souls of Heroes slain in Battle."

Panels to contain the names of the different services engaged in the war are formed under the great windows all round the chapel. The vaulting would be of gold and coloured Mosaic; the windows would be filled with the richest of stained glass; and the art of the sculptor, the wood-carver, and the workers in bronze and in marble, would find ample opportunity for the display of their craftsmanship.

The height to the roof of the chapel is about the same as that of Henry VII. Chapel, whilst its other clear internal dimensions are as follows, viz.: Length, 100 feet to the Apse; width, 50 feet; length of Apse, 27 feet; width, 25 feet. The north and south transepts are each 25 feet square, and, in addition, there are the rooms for clergy and choristers. The organ would be over the lobby leading from the choristers' room to the Apse.

The second drawing shows the eastern elevation of the chapel and cloister, and an interior elevation, looking south. The style selected is Gothic, and, in my opinion, no other style could be tolerated at this particular spot. The thirteenth-century Abbey and Chapter House, and the later style of Henry VII. Chapel, St. Margaret's Church, and the Houses of Parliament, are all Gothic, and these structures dominate the site of the proposed chapel and cloisters.

I have not the least doubt that if this scheme appeals to the public as a worthy one to commemorate the war, funds for its fitting completion will be readily granted by the Government, and willingly added to by the nation.

WM. WOODWARD & SONS,

F.R.I.B.A., F.S.I., A.A.R.I.B.A.

15 Gt. James St., W.C. 1.

## Forthcoming Events.

**Thursday, May 19.**—Royal Institute of British Architects.—Public Lecture at 9 Conduit Street, W., by Mr. Roger E. Fry entitled "Architectural Heresies of a Painter." 5 P.M.

**Saturday, May 21.**—Architectural Association.—Visit to Denham Place, Denham, Bucks.

**Monday, May 23.**—Royal Institute of British Architects.—Meeting at 9 Conduit Street, W. Paper by Mr. Robert Atkinson entitled "Cinema Design." 8 P.M.

## Competition News.

MEMBERS and Licentiates of the Royal Institute of British Architects must not take part in the Salisbury War Memorial Competition because the conditions are not in accordance with the published regulations of the Royal Institute for Architectural Competitions.

THE R.I.B.A. Competitions Committee desire to call the attention of Members and Licentiates to the fact that the conditions of the Sutton Coldfield War Memorial Competition are unsatisfactory. The Competitions Committee are in negotiation with the promoters in the hope of securing an amendment. In the meantime Members and Licentiates are advised to take no part in the competition.



## London Art Galleries.

(All rights reserved.)

At Walker's Galleries the central room is now occupied by an exhibition of the water-colour work of Mr. Alfred W. Rich. This artist in his present work shows the fine technical quality which we have found in other exhibitions. He may have founded his art on the examples of the classic masters of English water-colour landscape, on Cotman and De Wint, but his work is individual, and in this exhibition he seems to have frequently turned for his subjects to the beautiful Midland valley which is commanded by Ludlow, with her old castle, of whose inner walls he gives us also a study, and to the flat, rich pastures in which the Ouse takes its winding course. "The Ouse near St. Ives" is a good example of his clever technique, which varies according to his subject, his method employed, and even his paper—often slightly tinted or coarse-grained.

In one very successful study the effect of an expanse of water reflecting directly the cool, grey, luminous sky is obtained by leaving the paper in this part of the sketch, where the water reflects the light, almost entirely untouched; and I was glad to have the artist's confirmation of this observation, as I had imagined there might have been some very light preliminary wash. This was not the case, and one felt that any working up might have spoilt the effect here so successfully obtained. At the same time Mr. Rich gets wonderful depth of effect into some of these studies; and in his buildings his drawing—in such subjects as "Boston Stump," with its fine tower, Winchester and Ely Cathedrals, Tintern Abbey, and a view of houses looking on "The Canal, Norwich"—is clean and accurate. His colour is always reserved, but as true as that of the old masters of English water-colour art; and his style seems in the present display to be broader and more unconfined.

On June 8 one of the finest Italian masters of water-colour, Professor Onorato Carlandi, whose work is well known to our public, is holding a three weeks' exhibition in Walker's Galleries: the last which he held in London was in the same galleries shortly before the war, when I recollect that his work was very highly thought of here.

At Goupil's Galleries, in Regent Street, Miss Sybil Ashmore is holding an exhibition of water-colour portraits and other drawings, which attain considerable success. We might suspect something of Nicholson's influence in one or two of these subjects, and still more directly perhaps that of Holbein's unrivalled portraits in such heads as that of "Mrs. Ashmore," and again of "Anne," a charming face which reappears here in "The Green Bow." The young artist, who appears before us a boldly washed in "Self-Portrait," is evidently sensitive to charm and beauty, especially in her children ("The Scrap-Book," "The Posy") and women, apart from her portraits, in which she seems to aim at specialising, her landscape shown here does not call for very serious comment.

The Leicester Galleries have secured that brilliant, though not very prolific, caricaturist, Mr. Max Beerbohm, who has lately returned from Italy, for an exhibition of his caricatures, which is to open there soon after Whitsuntide. It is, I understand, now eight years since the inimitable Max has shown his drawings collected together, though he has been busy on literary work; and I shall keep my readers fully informed of this exhibition later. This week will be opened at McLean's Galleries an exhibition of sculpture by Gertrude Whitney, an American artist, who has, I understand, been recently showing her work in Paris with success. This exhibition will be under the direction of Messrs. Ernest Brown and Phillips, of the Leicester Galleries, and will be duly noticed in these columns. I shall take at the same time the three artists—Mr. E. Butler Bayliss, Signore Mario Micheletti, and Mr. Clifford J. Beese—who are exhibiting their paintings at the Burlington Gallery, in Green Street, from May 7

to 31, and the pictures, drawings, and stained glass of Mr. Reginald Hallward, which opened at the Twenty-One Gallery in the Adelphi on the same date.

A delightful little display of the water colours of M. Eugene Béjot was opened at James Connell and Sons' Gallery, in Old Bond Street, on May 5. M. Béjot is a member of the Society of Painter-Etchers, and in fact in these twenty-seven water colours, in wash with a very delicate line, and mostly treating Paris, Bayonne, Rouen, and Amiens, we seem to trace the hand of the practised etcher in the fine sense of line. Among the best here are those which treat the bridges of old Paris, the "Pont Louis Philippe," the "Pont des Saints Peres, Paris, '19," showing the Seine and behind the finely outlined line of buildings which fringe its banks, and the two scenes of the "Demolition du Pont de la Tournelle." In "Amiens, Rue Basse des Tanneurs," we feel less directly the presence of the etcher, for here the artist gets away from this and treats his colour more in mass. The note of the exhibition is its distinction and fine quality. S.B.

## Art News of To-day.

THE oil painting of the "Chef de l'Hotel Chatham," by Sir William Orpen, R.A. Elect, which was noticed in our account of last week of the Royal Academy, has been acquired by the President and Council for the nation under the terms of the Chantrey Bequest, as well as Bertram Nicholls' "Drying the Sails," which is hung in Gallery IX. The question of this year's rejections for the Academy exhibition, which was mentioned in our notice of last week, has since been taken up by Mr. Frank O. Salisbury in a strong letter to "The Times" on May 3. Mr. Salisbury, whose "Passing of the Unknown Warrior" and "Burial in Westminster Abbey" are very well hung this year, says very justly: "I have naturally no personal animus against this year's committee, but I want the public to realise that these rough-handed rejections of real artistic merit have deprived many famous artists of their chance of income. . . . Many portraits painted for presentation committees are rejected. The artist is in a hopelessly ignominious position. . . . What would Leighton and Millais have thought of a Committee which deliberately crams Room 6 with musty copies of Thornhill?" We understand that among the rejected is the Hon. John Collier, whose work has been always so popular, and Mr. Hugh Riviere, who has not missed an exhibition for many years.

An interesting art publication which will shortly be issued by Messrs. Chapman and Halls is that of "Sculpture of To-day," in two volumes, by Mr. Kineton Parkes. This will offer a survey of the world's sculpture in this twentieth century, in which the author will also discuss the influences which were at work in the latter part of last century in shaping the national schools of the present time,—the growing appreciation of Alfred Stevens in England, the genius of Rodin in France, Meunier's realism in Belgium, and the impressionism of Rosso in Italy. The work will include notices of the most significant modern sculptors, and be illustrated with 150 reproductions from their finest works.

Another art work which deserves a mention, now being published in Germany, is Weege's "Etruskische Malerei," which is an introduction by a well-equipped author to the culture and art of the Etruscans, bringing before the public, we believe for the first time, those wonderful frescoes in the tombs of Corneto Tarquinia. This work, a limited edition, will be published by C. F. Schulz, of Plauen, with eighty-nine illustrations and 101 phototype plates in a separate portfolio.

Mr. Jacob Epstein has protested in a letter to "The Times" against the plaster nose with which the beautiful Demeter of the British Museum has been accommodated. The whole subject of restoration of antiques is of such interest that we hope to return to it in a later issue.



## Sculpture at the Royal Academy.



Royal Academy Exhibition, 1921.

"THE PAST." By S. W. WARD WILLIS.

the Nottingham Memorial by Henry Poole, A., and the ideal figure, conceived somewhat conventionally, as in the male nude figure representing "Victory," a model of the bronze statue for the Cunard War Memorial by Henry Pegram, A. Of course it is right to recall to our mind within the walls of the Academy that these large figures are designed to be seen at an elevation and distance, generally as part of a composition: this thought indeed comes to us with a certain relief before the figure, in the Central Hall, of a British "Soldier on Defence" by Charles Jagger, a statue designed for Hoylake War Memorial, for one would not like to live in close quarters under ordinary conditions with this uncompromising individual. Strength is the quality sought, and in fact found, in this realistic figure, whose boots and overflowing nether garments and whole expression of defiance—which we feel sure could be accompanied on occasion by an appropriate expletive (or expletives)—seem to plant him in the soil he means to defend.

We find a milder note struck in W. Reid Dick's War Memorial, which takes the form of a draped female figure of great plastic charm, standing upon a plinth, and looking down, a wreath in her hand. Near this are some small "Niche figures," sketches in bronze of female figures by F. Derwent Wood, R.A., which have caught something of the feeling of Florentine Renaissance sculpture, though his cleverly modelled statuette of a "Dancer," this artist's diploma work on his election as Academician, is more carried forward and in a more realistic vein. Lastly I will mention some exhibits of interest in the Central Hall, where we find Charles Hartwell's marble bust of H.R.H. the Prince of Wales, intended for presentation to the City of London by Lord Marshall, P.C.; Sir W. Goscombe John's beautiful memorial figure of "Mors Janua Vitae," where the swing of the draped female figure is admirable; F. W. Pomeroy's marble "Victory"; and "The Past" by S. W. Ward Willis, an old man stooping to the child at his knees, which we illustrate here.

S.B.



Royal Academy Exhibition, 1921

WAR MEMORIAL. By W. REID DICK, A.R.A.

As I had occasion to mention last week in these columns I do not consider this a good year for sculpture in the Royal Academy; but at the same time there are individual works which merit notice, and in some cases reach a very good standard. Among these I should place Bertram Mackennal's sketch model for a bronze group for Australia House, which I presume may be destined in its complete form for the space above the main entrance. The subject is Apollo driving his team of four horses, who seem to rise out of the waves: the subject is not an easy one, but here is done full justice to in the nude figure of the young sun god—inspired perhaps by the Apollo of the Belvedere—and his plunging team.

Near this group in the Lecture Room is Sir W. Goscombe John's vivid and intensely alive portrait study of the Rt. Hon. David Lloyd George, for the statue which is to be erected at Carnarvon; and beside this last I should like to mention two very attractive ideal heads by women artists, the "Memory," a carved head in stone by Phoebe Stabler, and the head of "Peace," cast in bronze, a type of great plastic beauty, seen looking down, by Hilda B. Marsden. In this room is the charming little garden statue of "Puck" in stone, by Alec Miller, which is most suitable for its purpose, a female torso by Pamela Harris, with upraised arms, which has good modelling, and Christine Gregory's "Circle of Spring," in a pose which reminds us of the delightful figure of "The Greek Dancer."

War memorials are naturally still an important feature—but it must be confessed not always a very satisfactory or interesting one—of the present exhibition. They seem to vary between the aggressively realistic British soldier in colossal dimensions, such as the "Gordon Highlander," in bronze, part of the Echt War Memorial, by William McMillan, or "Captain A. Ball, V.C." for



## Architecture and Travel.

THE second of the series of public lectures arranged by the Literature Committee of the Royal Institute of British Architects was given on the 5th inst. by Mr. F. C. Eden, M.A., who had as his subject "Architecture and Travel." Sir Aston Webb, P.R.A., was in the chair.

In introducing his subject Mr. Eden alluded to the address given the previous Thursday in the Institute Galleries by Mr. Clutton Brock, whose aim, he said, had been to show that architecture could not be escaped, and that wherever men were gathered in communities it was not only unescapable but dominating. Pictures, sculpture, music, poetry, a man may, and if he be civilised often does, live without; but, said Mr. Eden, he must have the shelter of walls and roof. So, too, unless we take our holidays as nomads in a caravan or under canvas, we must be housed somewhere when travelling. Choice may urge one to Venice and another to Margate, but for both there is no escape from architecture or what passes for such.

Not only is the study of architecture fascinating in itself, but it enormously enhances the pleasure of travel. It is usually begun in books, and that is not altogether a bad way. Such books are free, at all events, from the metaphysical jargon that afflicts, for instance, the amateur of painting. There is no talk of "tactile values"; once the meaning of the commoner technical terms is learnt the rest is all plain sailing. But to give architecture a fair chance of being rationally enjoyed, one must be on one's guard against a good deal of misleading criticism which is not only in the air, but assumed by the text-books as axiomatic. It originated with certain brilliant writers of the last century, as Pugin, Ruskin and Morris, and though as critics they may have been discredited, their dogmatisms still darken counsel and confuse the popular view.

Mr. Eden then cited one or two such examples. "Architecture," we were told, "is sound construction truthfully expressed." That fallacy was Pecksniffian, and lay in the word "truthfully." We may or may not be aware that iron chains are embedded in the dome of St. Peter's. But did truth require them to rust away their usefulness in the open so that all the world might see and know they were there? In obedience to that dogmatism countless churches at home and abroad have been stripped of their mediæval plaster under pretext of exposing the "honest" masonry of the walls, and so given the aspect of rude grottoes, fitter to be decorated with clinkers and oyster shells than with rich stuffs and delicate carving.

No word was so misapplied in architectural criticism as the word "sham." Nobody like shams—but anybody can give a dog a bad name. The dome of St. Paul's is a sham if one liked to call it so: the dome seen inside is not the one seen outside, and neither of them carries or is capable of carrying the heavy stone lantern on the top, which is supported by an ingenious cone of brickwork out of sight between the two shells.

Half the enjoyment of an architectural tour in Italy will be spoilt, declared Mr. Eden, unless the word "sham," with all its ugly connotation, be dropped altogether from the vocabulary of criticism. How often a visitor to the cathedral of Milan, who has no word of admiration for the solemnity and devotion of that matchless interior, asks "Did you notice the sham tracery painted on the ceiling? I thought at first it was carved, and when I heard it was only painted it quite spoilt my enjoyment." Well, as a piece of decoration it may or may not appeal to one, but it certainly answers the purpose of giving a certain weight of colour just where it is wanted: in that church a white vault would not do. But to condemn it as a sham is beside the mark. Tracery executed in colour alone has been characteristic of Gothic decoration from the beginning.

One common feature of Italian churches incurs fierce condemnation for similar reasons. The façade often bears little relation in size or outline to the shape of the

church behind, and soars up far above the roof as a great screen wall. Such a front may actually deceive for a moment as to the height and roof-pitch of the church to which it belongs. It probably will not delude anyone familiar with Italian churches—and after all, they are built for the natives—but in any case, it is only necessary to walk round the corner and the deception is at an end.

In further illustration Mr. Eden said he would instance one rather trifling matter. Many a tourist at Milan has been shocked—he has probably got quite an eye for it by this time—at the sight of "marbled" wood or plaster. The art of painting other materials to give them a semblance of marble is as old as the Minoan age—it can boast the respectability of age at all events—and besides, the Italian rarely does his marbling deceptively. Suppose a green dado is wanted; the employer, being a man of taste, prefers broken to solid colour; so the painter, taking a hint from nature, gives him a suggestion merely, let us say, of *verde antico*; the result is an agreeably broken green with an amusing reminiscence of marble that no one familiar with the real thing could possibly mistake for the real thing. Perhaps the tourist is not so clever in detecting the fraud as he thought.

It is well to labour this point, because many people lose a deal of pleasure in fine architecture through mistaking the intentions of the designer. The latter did not set out to deceive us, but to produce a certain effect, which we must judge on its own merits, and not on the irrelevant ground of abstract morality applied to inanimate objects.

There was, said Mr. Eden, another line of criticism which was apt to mislead unless followed with caution, and that was the principle that any building or object which exactly fulfilled its proper function was *ipso facto* beautiful. For instance, it had been argued that the London pillar-box was a beautiful object, just because it answered its purpose so well. This criticism was acceptable to many since it flattered the scientific and mechanical prepossessions of the age. There was no nonsense about æsthetics; any man of common sense can form a sound judgment in such matters. When "fitness for function," as it is called, is in question, nature provides us with the best examples. There is not an animal or flower evolved during millions of years that it not utterly fit for its purpose. But at the Zoological Gardens one seldom finds people lost in admiration before the cages of the mandril or the wart-hog, nor in Kew Gardens before that strange African Arum, the *Amorphophallus*, exhibiting the tints and exhaling the odours of putrefaction. If it fails to attract us no doubt it does adequately achieve its aim of attracting the carrion flies. Fitness for function then is not incompatible with downright ugliness if we are to use terms in their accepted sense.

Or to look at the matter from a slightly different angle. Consider the simplest form of structure, a plain wall, say an old garden wall, such as a painter likes to bring into the background of his picture. Is it for its effectiveness in keeping the cows out of the garden and for growing such delicious nectarines that he values it, or for its fine texture and colouring?

The fallacy, said Mr. Eden, consisted in this. Fitness for function as an attribute of buildings appeals to the intellect, the faculty by which we appreciate ingenious adaptation of means to ends; whereas beauty appeals to the imagination and to the emotions. Therefore to apply the term beauty, even if qualified as "functional beauty," to what merely satisfies the reason is apt to cause confusion of thought. Good art, though never opposed to reason, possesses some quality which lies on a totally different plane.

What then is the distinction between building and architecture? It is certainly not the addition of ornament. That was one of the Ruskinian fallacies. He adjured us to look at nothing but the ornament. "The architect," Ruskin said, "is merely a frame-maker on a large scale." A sound building, according to Mr. Eden, is a work of the intellect, a beautiful building shows reason joined with vision—it is a work of the creative intelligence.



Beware then of books which lay down general laws or principles to which architecture must conform under penalty of becoming "insincere," "imitative," or what not. The only principles are these three enunciated by the seventeenth-century scholar, Sir Henry Wotton, and they cover the whole ground. "Well-building," he wrote, "hath three conditions, commodity, firmness and delight." It satisfies a need; housing for man and beast. It must conform to practical requirements that is what he means by commodity. It is akin to science, and must obey mechanical laws, that is firmness. Thirdly, and this is the condition which makes architecture an art, it must satisfy man's love of beauty, that is delight. If only the three threads of the warp are kept from getting crossed one may weave upon them whatever patterns critical taste and fancy suggest.

This quality of giving delight it is that we seek when on our travels, and are free to treat architecture as a pastime. Then, if ever, we can give thought to the beautiful, for the useful can take care of itself.

One characteristic of architecture that gives universal pleasure is the picturesque. We all know what we mean by it, but we don't all mean the same thing. Architectural picturesqueness does not arise from a jumble of incompatible elements still less from ruin and decay. Look from the top of a tower on any old Italian town that has escaped the heavy hand of modernism. The picturesqueness is at once felt; yet there is no hotch-potch of incongruities. Here domes from the South do not jostle spires from the North, nor flat roofs swear with steep-pitched ones, slate with tile or lead with copper. The most striking element in the picture is the unity of the roofs, unity of pitch, unity of material, unity of colour. A slate or a galvanised iron roof does not make a pleasing break, it strikes a jarring note; still more so does a ruined roof, with the tiles fallen in and the skeleton showing. Dilapidation is never picturesque.

Now descend into the piazza. Here also is obvious charm, but whence does it arise? It certainly looks casual and irregular, at least in the smaller examples. This we are apt to put down to the effect of time, successive rebuildings, the natural lie of the ground, old rights of way, prehistoric cattle tracks, and what not. But, asked Mr. Eden, is the lay-out so unstudied as it seems? If a comparison of two or three Italian piazzas discloses some common principle of arrangement, we may conclude that accident does not contribute so largely to their attractiveness as would appear at first sight. Apart from the irregularity of plan, which is far more obvious on paper than on the spot, where as often as not the eye fails to take it in, we shall find that the streets enter the square unobtrusively, and do not draw away the eye and distract the attention, thereby destroying the compactness of the "place" and breaking the continuity of the buildings by which it is framed. It will be noticed at once in any town which has had some broad Corso Garibaldi driven through it after the fashion beloved of the up-to-date municipality, how utterly the proportion, emphasis, and, one might add, cosiness of the old market-place has been impaired. The piazza has degenerated into a mere excrescence on the new street. Consider, too, the placing of churches and monuments, such as statues and fountains; the former are never in the middle, but at the side or end, and more often than not "engaged" in other buildings, so that you can only see two or three sides at most. Modern taste likes to open it all up. Even when these buildings are mere parasitic accretions, small shops or dwelling-houses, they give scale and interest. A few large churches may still be found in out-of-the-way unprosperous towns in France barnacled with these little dwellings, and who cares what may be hidden? There will be quite enough of the church showing to set the imagination at work.

A rather curious, but common, feature is the proximity of a smaller secondary square to the principal one. There is somehow a subtle feeling on passing from a smaller to a larger square, or vice versa, which is not experienced on entering from a long street. Anyhow, they act as a foil the one to the other. It may therefore

be assumed, after finding so many points in common, that the lay-out of these squares was anything but casual, was in fact the outcome, if not of conscious reasoning, at any rate of an unerring instinct in making a market-place both comfortable in use and delightful to the eye.

Mr. Eden devoted the concluding part of his address to a description of a short architectural tour in a part of Northern Italy off the beaten track where the excitement of the unexpected offered more than adequate compensation for the absence of "the unpleasant savour that cosmopolitan vulgarity leaves behind it." First came the huge fortress-like monastery known as the Sagra di San-Michele, looming above the village of S. Pietro. Next came beautiful photographic views of the white buildings of Oropa perched on a mountain shelf four thousand feet above sea-level and on the outskirts of Biella. Here is a vast hospice which gives free lodging to all comers, of whom there are sometimes more than 100,000 in a single year. From Biella a lovely drive of about four hours brings one to Varallo and its famous Sacro Monte. As at Oropa, Varese and elsewhere, a conspicuous feature is the series of so-called chapels, which were not built for religious functions of any kind but solely to shelter realistic groups of painted imagery, which form in conjunction with their frescoed backgrounds, tableaux of the Redemption Story. From Varallo one can walk to Orta over the Colma, the most beautiful walk, as an experienced traveller says, in the world. The detached chapels at Orta are laid out differently to those of Varallo, inasmuch as they have been placed so as to get the best effect from each separate building rather than with an eye to picturesqueness of grouping. The general scheme on the Sacro Monte at Varese, again, is different, for the chapels are not grouped in a confined space but are set at each turn of a broad paved road, which ascends in zig-zags along a rising ridge.



*International Society of Sculptors, Painters, and Gravers, 1921.*

MARGARET. Bronze Mask. By W. REID DICK, A.R.A.



## Thatch.—II.

By Charles G. Harper.

(See Inset Illustrations.)



A FARM ON EGDON.

LEAVING Dorchester, there will be found beyond the south-eastern outskirts of the town the hamlet of Upper Bockhampton, and the birthplace there of Thomas Hardy, the novelist. Appropriately enough, it is a thatched cottage, and the back of it looks out immediately upon the very edge of the wild: those woodlands and healthy spaces which, with a fine freedom of choice, are variously called Bockhampton or Piddletown Heath, or Thorneycombe and Ilsington Woods. "Ilsington" is a place-name found over all the country, appearing sometimes, in a sort of literary aphasia, as "Islington."

Bockhampton is on or near the verge of all those many-named heaths which Hardy merges together in his novel, "The Return of the Native," as "Egdon Heath." The heaths are untameable. They stretch forth and bid defiance to the best efforts of the cultivator; but down at the hamlet of Hurst, where water is plentiful, and the thirsty heath is subdued in an oasis of cultivation, there is an old red-brick farm of superior aspect, and yet with a thatched roof. Thatch, rightly or wrongly, generally has implied a more humble residential status than that of a manor-house type of residence, to which obviously this farm belongs, for the old gate-piers are still surmounted with stone globes, which the rustics, observant enough, perceive to be the signs of class-distinction. The country folk, therefore, style them "gentility balls."

Well, then; there stands the farmhouse, encircled by the glooming heath—a very fine mass, with a good effect of skyline. But there is, you cannot help feeling, a whimsical air about it. It is the thatch that evokes this feeling—an effect, oddly, such as might be produced by

a gentleman wearing a harvester's hat. Such gentility, in the region of wild, uncanny Egdon, wears, as Mr. Hardy would express it, "an anomalous look."

There is probably more thatch in Dorset than in any other county. Away up in the remote valleys, where tourists rarely penetrate, past broken-down and decaying Cerne Abbas, that anæmic survival of a little town once dependent upon a great Abbey, to Alton Pancras; and again along the valley of the Stour and in Blackmore Vale, this ancient, natural roof-covering is plentiful. Some years ago, when it seemed that thatching was almost to die out as a trade, Lord Alington had the new post office at Witchampton, adjoining his seat of More Crichel, thatched, and very handsome it looks.

But scarcely in the Isle of Portland, that stony, wind-swept outer limb of Dorset, do we expect to find anything save very heavy roof-coverings, against tempests. Yet, in perhaps one of the most exposed positions there, at the village of Chesil, at the foot of the cliffs, and on the actual Chesil Beach itself, there stands an extraordinarily dilapidated old cottage of strange contrasts. It is apparently of sixteenth-century date, built of enormous blocks of stone, in an obvious effort at extreme solidity; and yet it is thatched. Do you not remember those drawing-copies of old school days, after Harding and other romantic draughtsmen, which had for their subjects cottages of a picturesqueness that seemed almost impossible? You have never expected with confidence to behold the like of them in actual existence. Yet here, only a few feet above high-water mark, is the realisation of those copies. There are not any other cottages on Portland of this quality, and this is in ruins.

I can point to other old thatched cottages facing the sea in Dorset: at West Bay, Bridport, and at Ringstead Bay, near Weymouth. But they are not quite of this romantic quality. There is, however, one almost as



COTTAGE AT PENBERTH COVE.

OLD HOUSE AT ALVERTON, PENZANCE.  
Early Home of LORD EXMOUTH.





THE "SHIP" INN, PORLOCK.

good at Penberth Cove, near Land's End in Cornwall—a county in which we do not seek for thatch with much chance of reward. But here, dramatically planted by a rugged shore, and sometimes with great boulders slung on to the thatch to keep it from being blown away by Atlantic gales, is this specimen. And, at the western end of Penzance town, in the suburbanised outskirts of Alverton, remains the Devonian—rather than Cornish-looking long, low cottage, now the "Alverton Dairy"—the house in which Edward Pellew, afterwards Admiral, and created Viscount Exmouth, spent his early years. It is thatched, and partly built of "cob." The building is not really quite so low as it appears to be in the illustration, for the reason that the road and pathway have been raised at some time subsequent to its building, some one hundred and sixty years ago.

Of course, thatch has ever been the farmer's line of least resistance. It forms an obvious use for much of his straw, alike in covering the roofs of his farmstead, his labourers' cottages, his ricks, and—often enough, in Hampshire, Dorset, and Devon—his garden walls. In the heaths around Wimborne and Woodyates there yet remain numerous old so-called "mud cottages" and garden walls, built of the peculiar clay and sandy soil of the locality, which would speedily be dissolved by the weather, were it not for the thatch. It is not quite the thorough-going "cob" of Devon; but the Devon saying of cob walls, "Give 'em a hat an' a good pair of butes, an' her'll last for ever," meaning by "hat"

a good thatch; and by "boots" a good foundation and a few courses of masonry or brick, equally applies.

Thatched and weather-boarded barns are themselves things of an especial beauty in the rustic landscape: taking "beauty" in this connection to mean the appropriate use of native materials. No more charming scene, in the rustic way, is to be found in Wiltshire than that to be found at Coombe Bissett, on the main Exeter road between Salisbury and Blandford, where the little river Ebele crosses the highway, and an old black-boarded barn, at the outpost of a farmyard, stands with its feet actually in the water, the floor supported on those squat stone pillars which the farmers call "staddles," using them as a protection against rats.

In the northern part of Wilts, on the Bath Road, immediately after passing that mysterious mound of a prehistoric age, Silbury Hill, you come to Beckhampton, a hamlet once busy enough, in the coaching way. There stands, at the fork of roads, where the several routes through Calne and Devizes part company, the stately "Beckhampton Inn," now become the home of a trainer of racehorses; and near by is the far older "Waggon and Horses" inn, the resort in those days of humbler folk. Ironically enough, while the stately inn has long since retired from business, the humbler house of refreshment still carries on. It is a stone and plastered house, with one of the most eloquent and thorough of thatched roofs that I know of. Some rugged old stones built against the front make it fairly obvious that the house was erected partly from spoil extracted from the neighbouring stone circle at Avebury. It is the "Waggon and Horses" that most closely realises of anything in the neighbourhood the description given by Dickens in Chapter XIV. of the "Pickwick Papers," in the "Bagman's Story" of "the inn on Marlborough Downs." There can be no doubt that it is the house indicated, "a roadside inn on the right-hand side of the way, about a quarter of a mile from the end of the downs."

There is a spacious quality about the entire building which is so admirably in touch with the wide spaces of those downs and the mystic hill of Silbury, that "largest artificial mound in Europe," which you perceive indicated in the distance in the illustration, as to seem almost a touch of genius.

A peculiar fashion in thatch is a very noticeable feature of the Porlock district of Somerset. It is a local



THE "CAT AND FIDDLE" INN, HINTON ADMIRAL.





CHIVELSTONE: A RAINY DAY.

"school," so to speak, in the phraseology of art. The outstanding feature of it is the quaintly peaked comb of the roof-ridge at the gable-ends: combs often preposterously exaggerated, as seen in the thatched roof of the lodge of Ashley Combe, on the way between Porlock Weir and Culbone, and, indeed, at Porlock Weir itself, that curiously old-world, amphibious, half-farming, half-seafaring place, where a raised beach forms the "weir" of a salt-water inlet, and where, on the road down to the sea from Porlock village the weirdly thatched cottages illustrated here are to be found, picturesque alike in their roof-coverings and their chimneys, fitted with wind-breakers. The pretty old "Ship" inn at Porlock is itself thatched, and has one of the odd cylindrical chimneys of this locality; but the thatch of the "Ship" is, exceptionally, not extravagantly combed, although the cottage opposite is.

The "Cat and Fiddle" wayside inn, at Hinton Admiral, in the generally suburbanised district around Bournemouth, is a survival of a simpler age, with a plain thatch, but thought a good deal of in that neighbourhood.

In Devonshire and Dorset the thatcher's employment was generally an itinerant one, concerned largely with the timely covering of the farmers' ricks against bad weather; and of late years almost exclusively in this branch of the art. Autumn is the thatcher's busy time in this difficult and highly technical art. Some years ago, when pursuing inquiries in South Devon on the subject of thatching, I found farmers were generally of opinion that if the County Council's Technical Instruction Committees would institute classes for instruction in the then obsolescent art of thatching, it would be a better work than some of the things they had done. A skilled thatcher could then (I speak of pre-war times) earn ten shillings a day, and there was much competition for his services. A square yard of thatch would then cost 4s. for labour. For thatching ricks in harvest-time the work was calculated at 6d. an acre; not, of course, the area to be covered, but the contents of the rick viewed *vis-à-vis* the field whence the corn had been reaped. An average rick contains ten acres of corn. In Devonshire, wheat-straw is generally sold for thatching in "niches" (i.e., bundles of 28 lb.). The price used to be 1s. a niche.

Just as there are local styles of building, so also there are differences in style and methods of thatching. The Hants and Dorset stick or gad, with which the thatch is transfixed and tied, is straight, with cord tied at one end and fastened in. Devonshire sticks, of hazel, are shaped in bent form, like a pair of sugar-tongs.

Cob and thatch are almost inseparable in South Devon. Together, they produce that "warm in winter, cool in summer" interior of which mention has already been made. Those cottages are cosy fortresses against the climate, whether it be winter's rigours, summer's blazing skies, or those moist "zoggy" days of warmth and soft rain so common in those parts, which I have endeavoured to picture in the illustration of Chivelstone. A charming example of Devonshire thatch is found at East Budleigh, at Hayes Barton, the birthplace of Sir Walter Raleigh, where he was born in 1552; traditionally in the room over the porch.



OLD COTTAGE, LUSTLEIGH, SOUTH DEVON.

Porches are indeed a frequent item in Devon cottages. In that village of thatch, Lustleigh, in South Devon, there is an exceptionally charming old thatched cottage, with a granite-built porch, with simply but effectively chamfered archway. A curious, humble, and quite undistinguished cottage, but with a somewhat ornate thatch, is to be found in a remote situation on Dartmoor, near the hamlet of Hexworthy, seven miles north-west of Ashburton. It is called "Jolly Lane Cot," and stands on the Duchy lands. It has a quaint history: having been built by a rustic of that neighbourhood, for his father and mother, in one day; relying on the tradition that the encroachment of building upon common land could be maintained and the freehold claimed if a dwelling were built between sunrise and sunset and occupied and a fire



# COST OF BUILDING DOWN

## No Plastering Needed

Full Government grants, or 60 years' loan under State Aided Housing Schemes, can be obtained on houses built with "HURCAN" Slabs. The Walls are ready for paper or distemper as soon as the Cement Mortar has set and a coat of priming applied

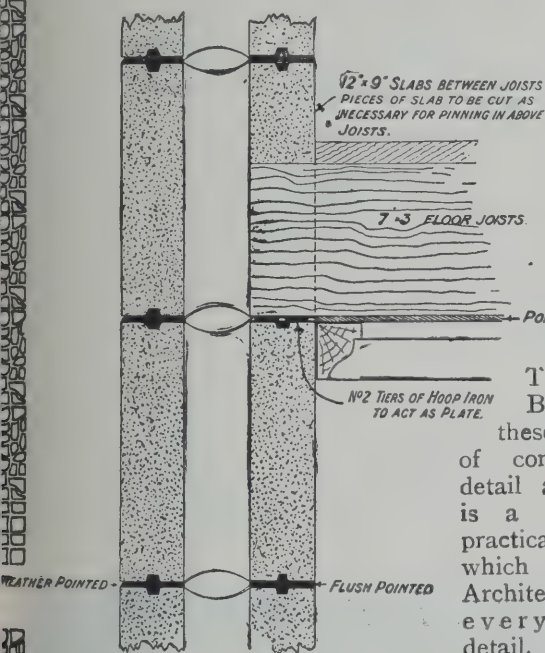
## Speed, Economy, Labour Saving

"HURCAN" Slabs make cavity walls superior to brick, for all purposes, at a lower cost. The work is completed in a fraction of the time required for brick, and 50% of the Mortar is saved.

## A BOOK THAT WILL HELP YOU

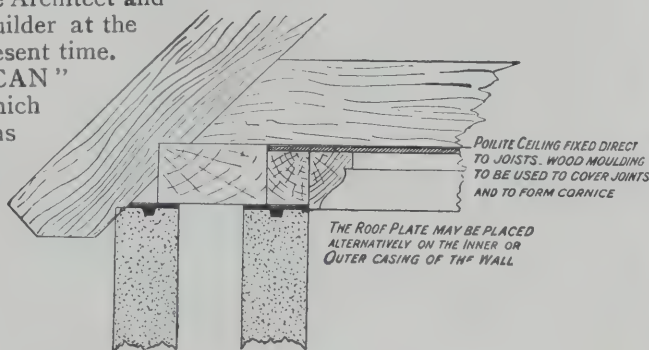
The "HURCAN" Book shews how, for less than the cost of brick, a "HURCAN" House ranks with Stone.

## HOW TO BUILD "HURCAN" HOUSES

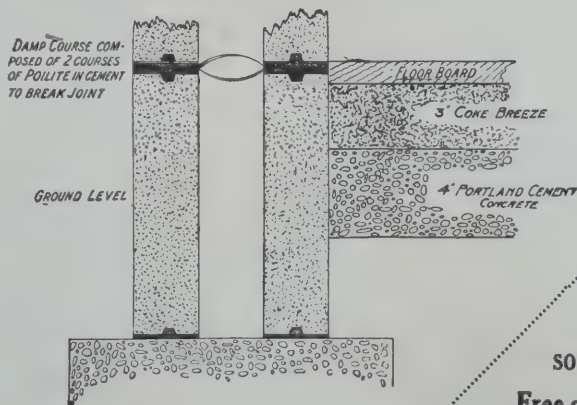


"HURCAN" is a labour-saving invention invaluable to the Architect and Builder at the present time.

The "HURCAN" Book (from which these illustrations of constructional detail are taken) is a thoroughly practical work, in which a trained Architect explains every practical detail.



"HURCAN" is delivered in finished slabs, ready for use, in standardised sizes. The slabs are thoroughly matured, and faced with Asbestos-fibre and cement, giving a surface like dressed stone—impervious to moisture, and no condensation has been found under the most trying conditions.



Write for the  
**"HURCAN"**  
**BOOK**

**Bell's United Asbestos Co.**

LTD.,

Southwark St., London, S.E. 1.

To

**BELL'S UNITED  
ASBESTOS CO. LTD.,**  
SOUTHWARK ST., London, S.E. 1.

Free of charge please send me  
the "Hurcan" Book advertised

in "THE ARCHITECT"

Name .....

Address .....





"JOLLY LANE COT," HEXWORTHY.

burning on the hearth in that time. After seeking in vain for accommodation for the old people, this man waited an opportunity in June, when the farmers were all away at market, and, enlisting the services of friends, built the cottage and installed his parents, with the fire burning, within the specified time. There was much talk of evicting them; but the matter was compromised by payment of a small quit-rent for cottage, paddock, and garden.

(To be concluded.)

## Royal Institute of British Architects.

A COUNCIL Meeting of the R.I.B.A. was held on May 2, and from its minutes we give the following notes:—

*Unification and Registration.*—At a special meeting the Council considered the Report of the Unification Sub-Committee and advised the representatives of the Royal Institute, in view of the meeting of the Unification Committee on May 12.

*The Office of Works.*—The Council approved a recommendation from the R.I.B.A. Office of Works Committee that a deputation should be sent to the First Commissioner of Works.

*The Scale of Fees for Housing Schemes.*—It was reported that the Director of Housing, Sir Charles Ruthen, had consented to receive a deputation to discuss all outstanding questions connected with the Scale of Fees for Housing Schemes.

*The Ken Wood Preservation Council.*—The President was appointed to represent the Royal Institute on the Ken Wood Preservation Council.

*The Honorary Associateship.*—The Council directed the Secretary to summon a special general meeting to consider the proposed alterations in the by-laws affecting Honorary Associates.

*Rapid Testing of Steel and Other Metals.*—The Council approved a recommendation of the Science Standing Committee that a demonstration should be made at a general meeting of the Royal Institute of a new machine for rapidly testing steel and other metals.

*Appointment of Examiners.*—On the recommendation of the Board of Architectural Education the Council appointed the Examiners for the June Examinations.

*The Annual Dinner and Conference of the Franco-British Union of Architects.*—In view of the industrial situation, it was decided to leave in the hands of the President the question of postponing the Annual Dinner and the Conference of the Franco-British Union of Architects.

It has been decided to form a guild for the furnishing industry on the lines of the Building Guild, with which it is intended to co-operate.

The portrait of Sir Aston Webb, P.R.A., which is the Diploma work of Sir William Llewellyn, R.A., and is hung in Gallery No. 1 at the Royal Academy, comes in for severe professional criticism in the "Tailor and Cutter." Their critic complains that the clothes are "too nebulous" and there is a "lack of definiteness." The coat is without seams or buttonholes, and the right side appears to be without a lapel. The breast-pocket welt is too large.

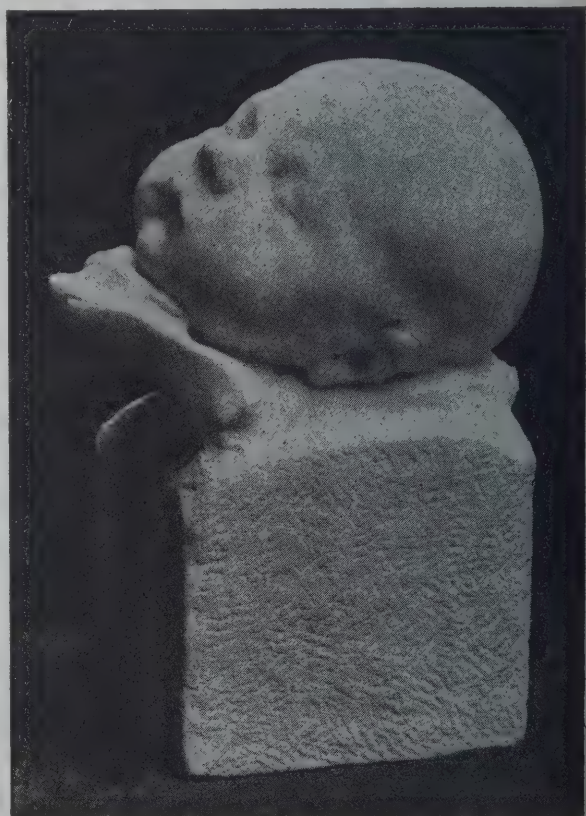
## "The Architect" Fifty Years Ago

MAY 13, 1871.

THE ROYAL ACADEMY.

WE have now to notice the competition drawings and representations of old buildings. With regard to the former, we are astonished, considering the number of competitions which have taken place since last year, that so few of them are here represented. There can be no doubt at the present day that competition work forms a very important element in the progress of architectural design. In the place of the severe course of design which all Continental architects have to go through at the academies and schools, competition work in England really constitutes the only opportunity of indulging in a like study. The classes of design in the Royal Academy and Architectural Association are of too elementary a character, and the subjects taken up of too small a nature, to allow of that grasping of large masses of building in plan and elevation which gives freedom and originality in design. On the other hand, when in full practice an architect has not that time at his disposal which is so necessary in the composition of any large work. Added to this, the economy of the building—its construction and execution—are apt to narrow the mind, and confine the chief study to practical arrangements. Competition work, therefore, whether for honorary prizes or for buildings to be erected, is one of the most important elements in the progress of architectural design, and as such, every opportunity ought to be taken of placing it on record before the general public and the profession. Now, since last year there have probably been as many as ten or twelve important competitions, of which three only are here represented, in four designs. Of the twelve sets of drawings for the Corn Exchange, two only are shown by Messrs. R. Hesketh and T. H. Watson and Mr. G. G. Scott, jun. Of the "Criterion" competition, in which there were fifteen competitors, one only by Mr. R. Phené Spiers is shown; and one second-rate drawing only of the Winchester Town Hall by Messrs. Salmon & Jones.

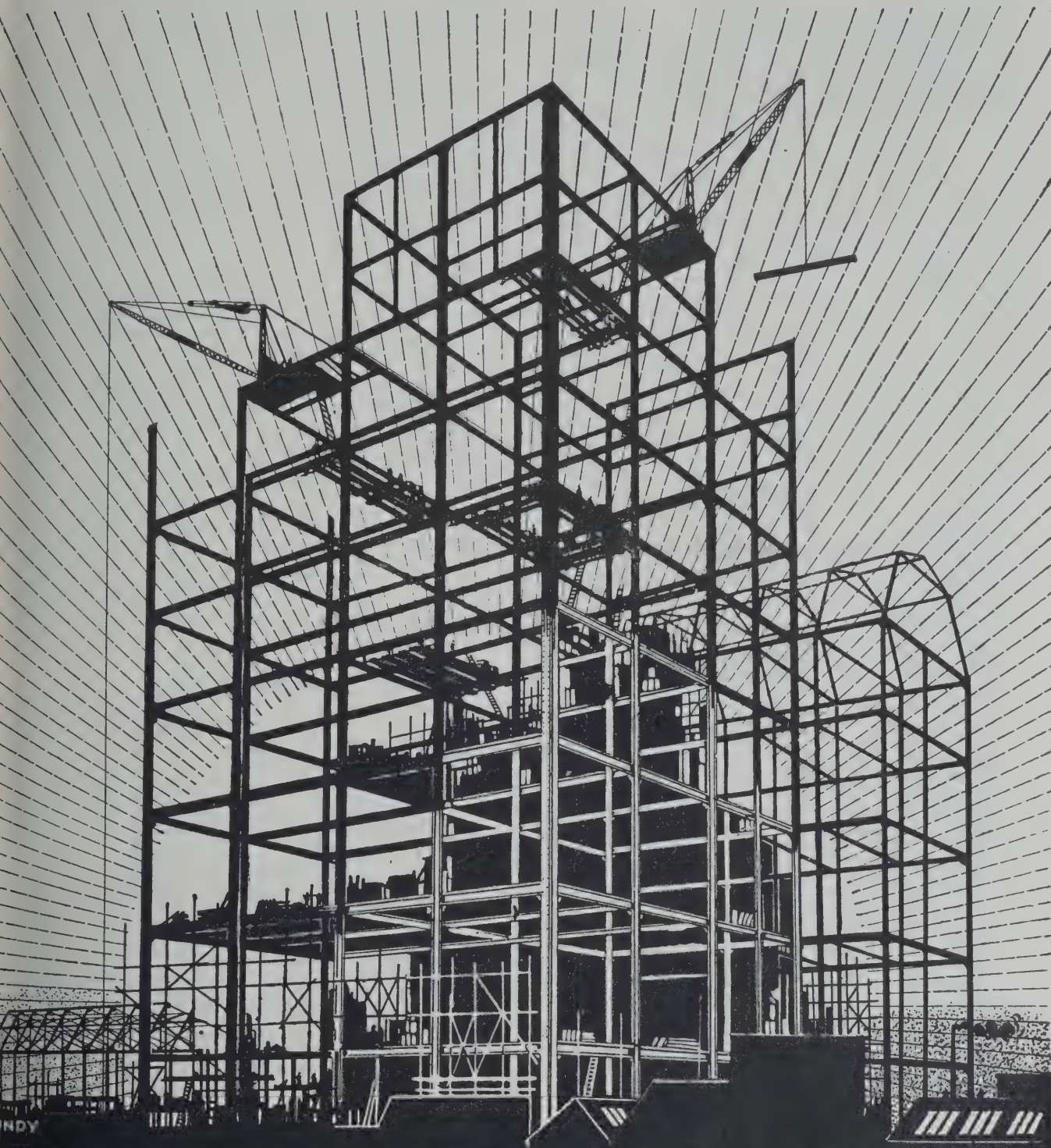
THE Royal Navy memorial for the Western port is to be erected on Plymouth Hoe and not at Devonport. Sir Robert Lorimer, A.R.A., A.R.S.A., the architect to the Imperial War Graves Commission, has been entrusted with the task of designing the memorial as well as the two other Navy memorials that are to be erected at Portsmouth and Chatham.



Royal Academy Exhibition, 1921.

DAWN. By W. REID DICK, A.R.A.





# REDPATH BROWN & CO. LTD. CONSTRUCTIONAL ENGINEERS

## WORKS AND STOCKYARDS

### LONDON

Riverside Works,  
East Greenwich S.E.

### MANCHESTER

Trafford Park.

### EDINBURGH

St. Andrew Steel Works.

### GLASGOW

Pinkston.

### BIRMINGHAM

Office: 47, Temple Row.

### NEWCASTLE-ON-TYNE

Milburn House.

Office 19 Waterloo St.

London City Office:- 3, LAURENCE POUNTNEY HILL E.C.4



## National Wages Council Award.

THE following interim award of the National Wages and Conditions Council for the Building Industry *re* the notices pending has been issued:—

The National Wages and Conditions Council has considered the reference to it of the notices pending for alterations of wages and conditions, and although owing to the complexity of the matters submitted the Council has not yet completed its labours upon them, it has come to the following decisions thereon and has adjourned until May 31, when it expects to be in a position to complete the business.

The Council had before it the fact that upon the present-day cost of living there is warrant for a reduction under the sliding scale of 3*d.* per hour, but as an interim award the reduction indicated in the first resolution has been given.

"That the wages of craftsmen and labourers be reduced 2*d.* per hour as and from May 16.

"That the wages of labourers be reduced a further 1*d.* per hour as and from July 1.

"That this meeting stand adjourned until May 31, when the difference between the rates of craftsmen and labourers' wages be further considered and decided.

"In the interim a Joint Committee of Employers and Labourers, together with a representative of the National Federation of Building Trade Operatives, meet to inquire into the operation of any reduction of the labourers' wages and the effect such reduction would have on the lower-paid districts in order that the minimum shall not fall below an agreed amount."

"That both parties meantime endeavour to arrive at a recommendation as regards hours to be considered at the July meeting of this Council."

A. G. WHITE, R. COPPOCK, Joint Secretaries.

## General.

THE Durham County Council has adopted a revised scheme for the remodelling of Earl's House Industrial School at an estimated cost of £40,030.

THE Reading Town Council is supporting the protest of the Reading Society of Architects (printed in our issue of April 29), with regard to the elevation of the proposed new post office in Friar Street. So is the Chamber of Commerce.

THE Stamford Town Council have decided to recommend to the Housing Commissioner the acceptance of a tender for £51,154 7*s.* for sixty-six dwellings on the New Cross Road site, received from Mr. Jno. Morgan, of Aberystwyth.

THE Sewage Disposal Committee of the Doncaster Town Council are considering a sewerage scheme involving an additional outlay of £410,000. Particulars have been forwarded to the Ministry of Health.

THE Metropolitan Water Board have provisionally accepted the tender of Concrete Piling, Ltd., amounting to £18,529 2*s.* for the construction of a covered service reservoir and other contingent works at Bickley, Kent. There were twenty-one tenders.

THE Wolverhampton Town Council on Monday last adopted a recommendation of the War Memorial Committee to erect a monument at the south-west angle of St. Peter's Church, the site selected by Mr. John W. Simpson, P.R.I.B.A. It is proposed to spend £5,000 on the memorial.

THE Chippenham Town Council last week adopted a recommendation that the remaining thirty-two houses on the Ladyfield estate (forty have already been built) be erected, and that the tender of Messrs. Downing & Rodman at £795 per house be accepted. During a discussion it was stated that these figures were considerably below a previous tender.

At the special general meeting of the Surveyors' Institution held on Tuesday, 10th inst., a resolution approving the Supplemental Charter was unanimously passed. The meeting called for the afternoon of Monday, May 23, will be deferred until the result of the petition for the Supplemental Charter is known, when further general meetings for the approval of the amended by-laws will be held.

THE Health Committee and the city surveyor of the Liverpool Corporation, having approved the plans for the proposed new premises of the National Bank, Ltd., at the corner of James Street and Fenwick Street, permission is being sought from the Prohibition Committee to proceed with the erection. The new bank will be one of the loftiest piles in

the city, its height being approximately 110 ft. Its site covers an area 80 ft. long by 50 ft. wide, with the main frontage in James Street. There will be nine floors above street level, and the bank premises are to be confined to the ground floor and basement, the other eight floors being for offices. Messrs. T. Arnold Ashworth & Son, of Liverpool are the architects.

SIR ALFRED MOND, as Minister of Health, was questioned last week as to whether his attention has been called to the resolution of the Council of the Royal Institute of British Architects condemning the form of building contract, No. 1, issued by his Department on the ground that this form leaves too much in the hands of the contractor, who is thereby largely relieved from responsibility; and whether he would direct that in future, in the interests of the ratepayer, only ordinary lump-sum building contracts shall be entered into. Sir A. Mond, in reply, said he agreed that the ordinary lump-sum contract is to be preferred, and the majority of housing contracts are on this basis. The No. 3 form of contract has been used in a limited number of cases where it has been found impossible to obtain reasonable lump-sum tender.

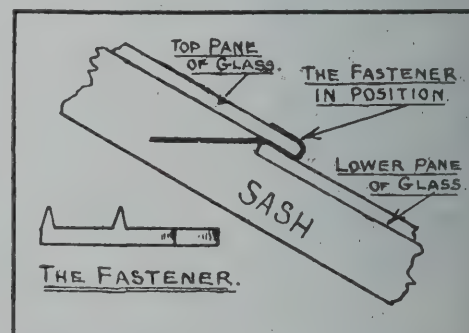
At the House of Commons on the 6th inst. the Minister of Health, Sir Alfred Mond, received a deputation from the National Federation of Building Trades' Employers who are actively engaged in carrying out the scheme for the training and employment of ex-Service men in the building industry. The deputation expressed some concern at the action of a number of local authorities in cancelling or reducing the number of houses to be built on their existing housing contracts. They were anxious to be assured that the Government did not propose to reduce the total number of houses to be built under the housing scheme below the number of 176,000 houses, for which tenders have been approved. Sir Alfred Mond stated definitely that there was no such intention, and it was certainly not proposed that the number of houses to be built under the housing scheme would even be limited to 176,000, and this number would undoubtedly be exceeded.

## Trade Notes.

MESSRS. WILLIAMS & WILLIAMS, of Chester, Manchester and Sardinia House, Kingsway, W.C. 2, inform us that their weekly output of their Reliance Works, Chester, is 5,000 steel windows of varied design. Cottage casements are made in standard sizes.

A REFERENCE book which should prove of great assistance to export traders has been issued under the title of "Heaton Canadian Export Book." It gives complete lists of the exportable, manufactured and agricultural products of Canada, together with lists of firms who undertake to fulfil export orders in the different trades. The Canadian National Railways have had a special edition of this work prepared with the object of encouraging trade within the Empire, and particularly with Canada, and copies may be obtained free on application to Canadian National Railways, Orient House, New Broad Street, London, E.C. 2.

WE illustrate a very simple device for fastening glass in glasshouses and frames which are usually allowed to become dilapidated owing to the present difficulty of refixing broken panes. The old method of fixing by means of brads on the outside possesses many disadvantages, not the least being the habit first of the brads and then, as a consequence, the glass itself to fall out. Furthermore, when the sash bars have



become decayed they afforded no grip for the brads. But the new Paragon glass fastener (patent applied for) avoids all these troubles. It is a light brass hook which is fixed into the sound wood of the sash bar under the glass by two spikes and whose end curls over the lower edge of the top pane. The Paragon may be obtained from sundriesmen or from the manufacturers, Messrs. Furness & Richardson, 61 Tweedy Road, Bromley, Kent.



## CONTENTS.

Life, Art, and Enjoyment	PAGE 353	The Economic Unit Principle Applied to Large	PAGE 362
Illustrations: Notes and Comments	354	Cities	
London Art Galleries: Art News of To-day	356	Industrial Standardisation of Engineering and Allied	363
Architecture at the Royal Scottish Academy	357	Products	
The Institution of Civil Engineers	358	The Protection of Iron with Paint against Atmospheric	364
"The Architect" Fifty Years Ago	358	Corrosion	
Saunders v. Beadel	359	Government Scheme for the Employment of ex-Service	366
Architectural Education	360	Men in Building	

## Life, Art, and Enjoyment.

WE are constantly reading of new theories regarding Art and its value to human existence, but we think that writers frequently neglect the one thing needful—that it must be the product of vitality and enjoyment. It is true that many men do praiseworthy work without enjoyment, or with very little; but it is doubtful whether the best things have ever been the result of painful striving after ideals, or they are more often the result of pure enjoyment in a creative work—or, indeed, in work of any kind. For, fortunately for mankind, facility in executing even very mechanical tasks brings with it a sense of pleasure which can be accounted for in this way. We try to learn to do anything, and our first efforts may be likened to the painful climbing of an inclined plane. We go on—if we have endurance and resolution—and reach a point beyond which progress becomes rapid and almost automatic, like sliding down an inclined plane. The apex of the plane represents the point at which enjoyment begins to be a marked feature, and thereafter natural momentum carries us onwards with accelerating velocity.

If our theory of life is right, we believe the average man, who is overtroubled about great theories of the value and use of his individual effort to the community, is at once too egotistic and too impersonal. He is too egotistic because only a distorted idea of the relative values of the individual and community can bring about the conviction that what the individual does, or does not do, matters greatly to the community, while he is too impersonal if he imagines he can do anything really worth doing unless he enjoys doing it in every fibre of his being. He is, in other words, if he is doing good work—and especially creative work—please himself, for by so doing alone is he likely to delight others. But he must not think in doing it that he is bestowing inestimable gifts on the community, but only that he is working normally and reasonably. He should enjoy himself up to the hilt, and if he is wisely philosophic discount the importance of what he has done or is doing. It is the process of working, and not the results, in which the truest pleasure is to be derived. A man should, to use a paraphrase, mint the coin of his imagination and be perfectly prepared to let the world accept it as copper, for only disappointment in results from the conviction that we can force the community to accept the values we are inclined to put on our efforts. Occasionally some of us may feel that what we have considered as our copper coins may be taken by the community as gold pieces, in which case we are fortunate, but should not let our judgment to be swayed.

We confess to being a little uncertain as to whether there are any high and immutable standards of Art, and the very earnestness with which writers attempt to prove that there are frequently leads us to believe that their theories are the results of attempts to remove their own uncertainty. Each man is the battlefield of a number of physical sensations which so colour our thoughts and estimation of our surroundings that, instead of one clear im-

pression, our judgment of values changes daily and hourly, according to circumstance. If we always spoke the truth at every time, most of us would confess to finding little pleasure in the greatest of buildings seen in certain critical moods. The work of the most noted of the world's architects, painters, and sculptors do not always please us, just as the most beautiful scenery seen under certain physical and climatic conditions has no attraction for us. A so-called "thing of beauty" is not, as Keats proclaimed, "a joy for ever," but only a more frequent joy than something else with which we may compare it. It is conceivable that if we could rightly use our powers of criticism we should find little to admire in anything that the imagination of man has created, while it is equally true that, to the man of vivid and fervent imagination, the world of his own thoughts is a treasure-house of Aladdin.

Mr. F. C. Eden, in his paper on Architecture and Travel at the Institute, said some very good things, and we are always glad to hear any outspoken criticism about the so-called "shams" of Art, in which he expressed in very simple and convincing language the conclusions which Geoffrey Scott has analysed and proved so convincingly in his work on the "Architecture of Humanism." We are glad to see him pointing out the fallacy of regarding any building or object which fulfilled its purpose as being beautiful. We think that his statement that "a sound building is a work of the intellect, and a beautiful building shows reason joined with vision" is an unusually sound and complete definition, and we would add that it is impossible to conceive of "vision" apart from the delight of the designer, and impossible to conceive the architectural moralist who is always thinking in the cant term of the "service of Art and its functions in respect to mankind" feeling delight in the full measure. We believe if we had a mental analysis of our greatest artists before us we should find that they had been egotists in the sense that they had primarily gratified themselves without thought of the importance of their work to the world, and that they had been curiously indifferent about social theories and the myriad of questions which now exercise those who write about Art.

It is impossible to say whether we shall ever arrive at a common and agreed acceptance of what constitutes good Art, but we believe if we do it will be found that many of the phases which represent the conclusions of the pedants and precisions of the late eighteenth and early nineteenth century will be eliminated, because they give no expression or feeble impression to any sense of delight in design, and because the fancy which gilds our best efforts is wholly or partially wanting in them. At the risk of being accused of heresy, we have our doubts whether Sir John Soane's work, or that of Robert Smirke, or even of Cockerell, will have abiding reputation, while we are sure that an increasing number of the public will regret the demolition of earlier and cruder works of the Georgian epoch, which frequently violate some architectural canon or other.



## Illustrations.

HOTEL AT THE DAM, AMSTERDAM. MEWES & DAVIS, Architects.

WE are glad to illustrate this very excellent example of symmetrical planning. The very great simplicity of the arrangement gives an erroneous impression of the size of the building, which will be one of the finest hotels in Europe. Every detail both of plan and elevation has been worked out with the greatest attention and care, and,

what is most important in a building used by a succession of visitors, the whole arrangement can be understood at once. The site occupied by the buildings is one of the best in Europe, in close proximity to the Royal Palace. The architects are Messrs. Mewes and Davis.

## Notes and Comments.

### The Architectural Association.

THE following appeal is made by the Architectural Association to the profession and to those of kindred occupations, which will, we hope, meet with an adequate response:—

*In order to raise funds immediately for the payment of the outstanding balance of the Architectural Association building debt, the Council has decided to issue Debentures in multiples of £50 amounting to £20,000 bearing interest at the rate of 6 per cent. per annum, payable half-yearly on April 30 and October 31.*

*Debentures will be redeemable by annual drawings to commence at the expiration of one year from the date of issue, and a sum of £500 will be applied each year for this purpose, but the Council reserves to itself the right to redeem Debentures to over and above this amount as opportunity allows, particularly from donations which it is hoped to receive from an appeal to be issued for an Endowment Fund.*

*The Debentures will be a first charge on the assets and property of the Association, which provide more than ample security for the amount to be raised.*

*The assets of the Association are as follows:—*

1. *Forty years' lease, dating from 1917, of the premises in Bedford Square, held from the Bedford Estate at a rental of £300 per annum. The premises comprise two houses (Nos. 34 and 35) which have recently been reconstructed to form one building, together with a large block of four studios with a connecting gallery to the front block of buildings, and having also a separate entrance in Morwell Street. In all a sum of £25,000 has been expended on alterations and rebuilding.*

2. *Furniture and equipment generally, including all the requirements of a club, valued approximately at £7,000.*

3. *A valuable library of architectural books which at a very conservative estimate is worth £5,000.*

*The Association derives its main income from the following sources: Membership subscription, say £2,000 per annum; Students' fees, £10,000 to £12,000 per annum. The membership, which includes most of the leading architects of the day, numbers nearly 1,600, and is continually increasing. The Architectural Association School of Architecture, which is the largest and most important in the British Empire and enjoys a world-wide reputation, accommodates 200 students and is now full, with further names booked for two or three years to come.*

The Association, judging from its continued success and its wise management, may be regarded as one of the most stable of all our institutions, and its Debentures should prove a good and safe investment for all those who have a little spare capital.

### The "Nameless" Exhibition.

THE Grosvenor Galleries are arranging an exhibition to be entitled the "Nameless" Exhibition, and the editor of the "Burlington Magazine" writes to say that its primary object is the inclusion of all representative schools of British art, the withholding of authenticity being of secondary importance. The desire of the promoters is that attention shall be concentrated on the pictures themselves, and though critics will be able to identify nearly all the exhibitors' names, the editor of the "Burlington" appeals to them to refrain from mentioning them.

We do not know whether under these circumstances

critics will criticise in a freer manner than they do ordinarily, and we question whether the public are likely to buy more freely.

In the popular vernacular, people object to buying a pig in a poke, and it is questionable whether the average picture buyer will be content to buy an anonymous picture except at a lower price, which might not suit the artist concerned. Buyers of pictures are often condemned for being influenced by names, but it must be remembered that they may reasonably have a dual object when buying: firstly, because they wish to possess given work; and secondly, because they feel they would have, if necessity arose, no difficulty in realising what they had paid. Probably the buyers, like the critics, will know the artists' names, and we feel that it is rather difficult to imagine what object will be served by this experiment.

### A Joint Building Contract.

WE are glad to learn that a conference has been held at the Institute between representatives of the R.I.B.A., the Society of Architects, the Institute of Builders, the National Federation of Building Trades Employers, the Surveyors' Institution, and the Quantity Surveyors' Association, at which it was unanimously agreed that a new form of Conditions of Contract should be drawn up. This is as it should be, for both architects and contractors waste their time in drawing up forms of contract to which the other party may take reasonable objection, and we should be glad to have the sums which the Royal Institute has spent in legal advice on details of contracts which in the natural order of things are treated as dead letters. The last form of contract proposed by the Institute was both bad, complicated, and unreasonable; and the same criticism applies with even greater force to the form recently proposed by the National Federation of Building Trades Employers. While the Committee just formed is considering the subject it would be well if they could see their way to agree on two forms of contract, one applicable to important and the other to small work up to, we might say, £4,000 in value. In this latter case we believe a contract might, with advantage to all parties, be greatly simplified and shortened.

### Reconstruction in Belgium.

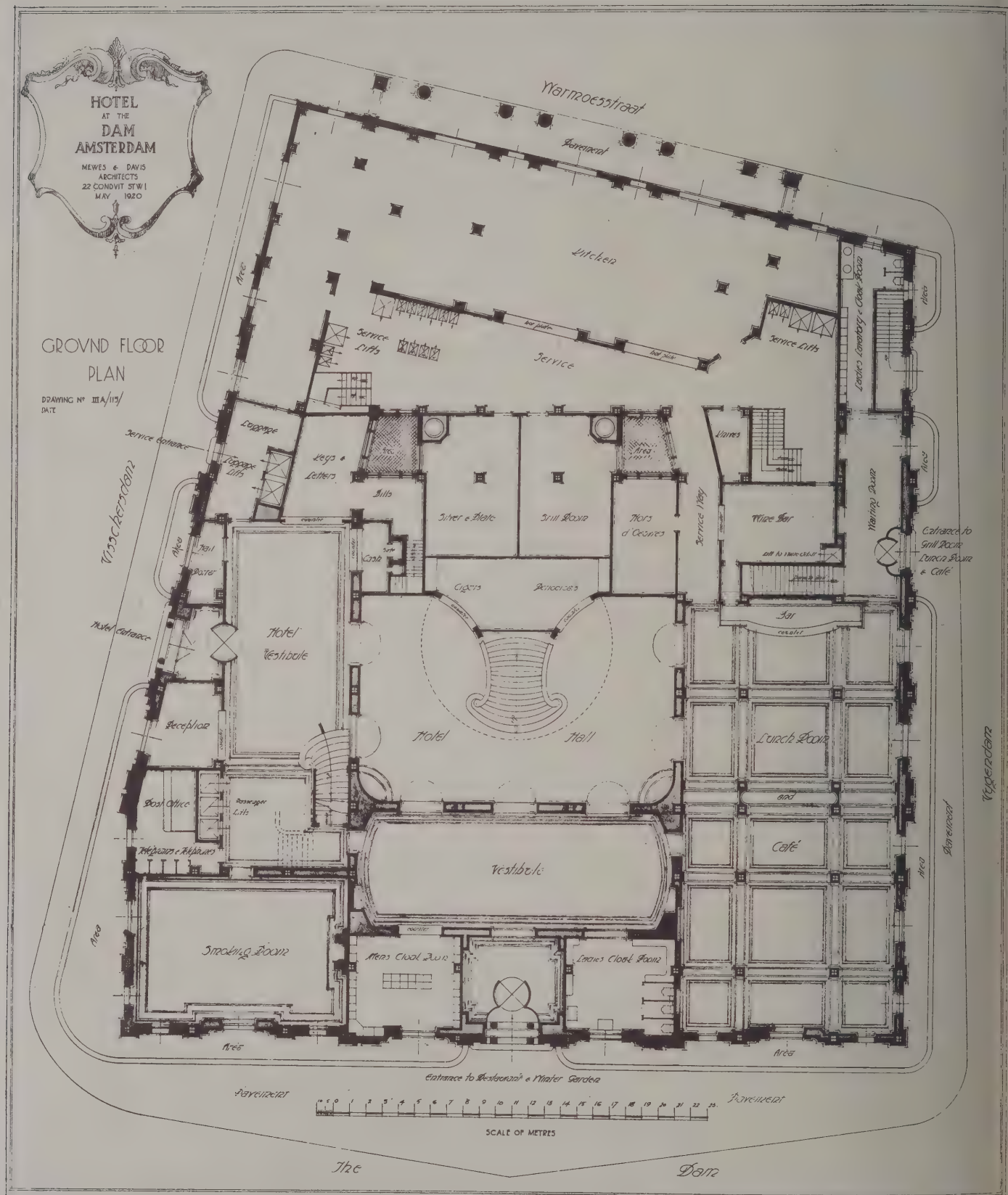
THE Belgian Minister of Science and Fine Arts gives in "The Times" the following interesting description of the progress of reconstruction in Belgium:—

"Immediately after the war a number of Royal Commissions were appointed in the different areas for purposes of reconstruction, as it was thought that the work would proceed more quickly in this way than if everything had to be done through Ministerial departments. Therefore, these Commissions are far more responsible than I am for the æsthetic side of reconstruction. On the whole, the plan has worked satisfactorily although there are, of course, a few exceptions. For example, it is proposed to rebuild the very beautiful thirteenth century Gothic cathedral at Dinant—one of the best architectural jewels of Belgium—with buttresses which it never possessed before, and which it does not need, since the only *raison d'être* of a buttress is to serve as a support for the walls, and there is no reason why the walls should not be able to stand without this support. There is no question in Belgium of spending too little on reconstruction. Indeed, we are inclined to spend too much, to do things too well. The chief artistic feature





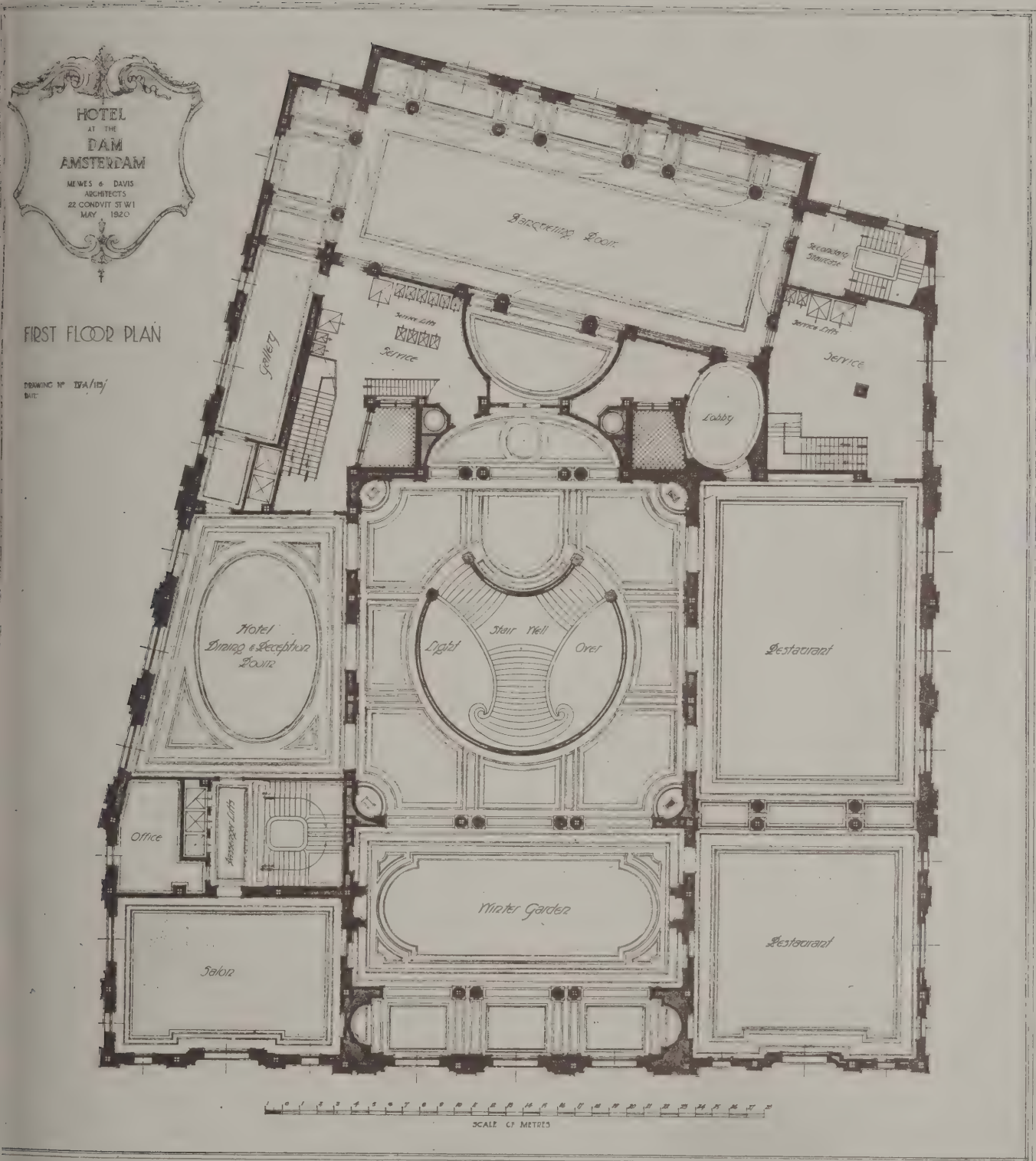
THE ARCHITECT, MAY 20th, 1921.



SCREENLESS PHOTO PROCESS, SPRAGUE HAYCOCK (PRINTERS) LTD. 69 & 70, DEAN STREET, LONDON, W.1

HOTEL AT THE DAM, AMSTERDAM.  
MEWÈS & DAVIS, ARCHITECTS.





SCREENLESS PHOTO PROCESS, SPRAGUE-HAYCOCK (PRINTERS) LTD. 69 & 70, DEAN STREET, LONDON, W.1.

HOTEL AT THE DAM. AMSTERDAM.

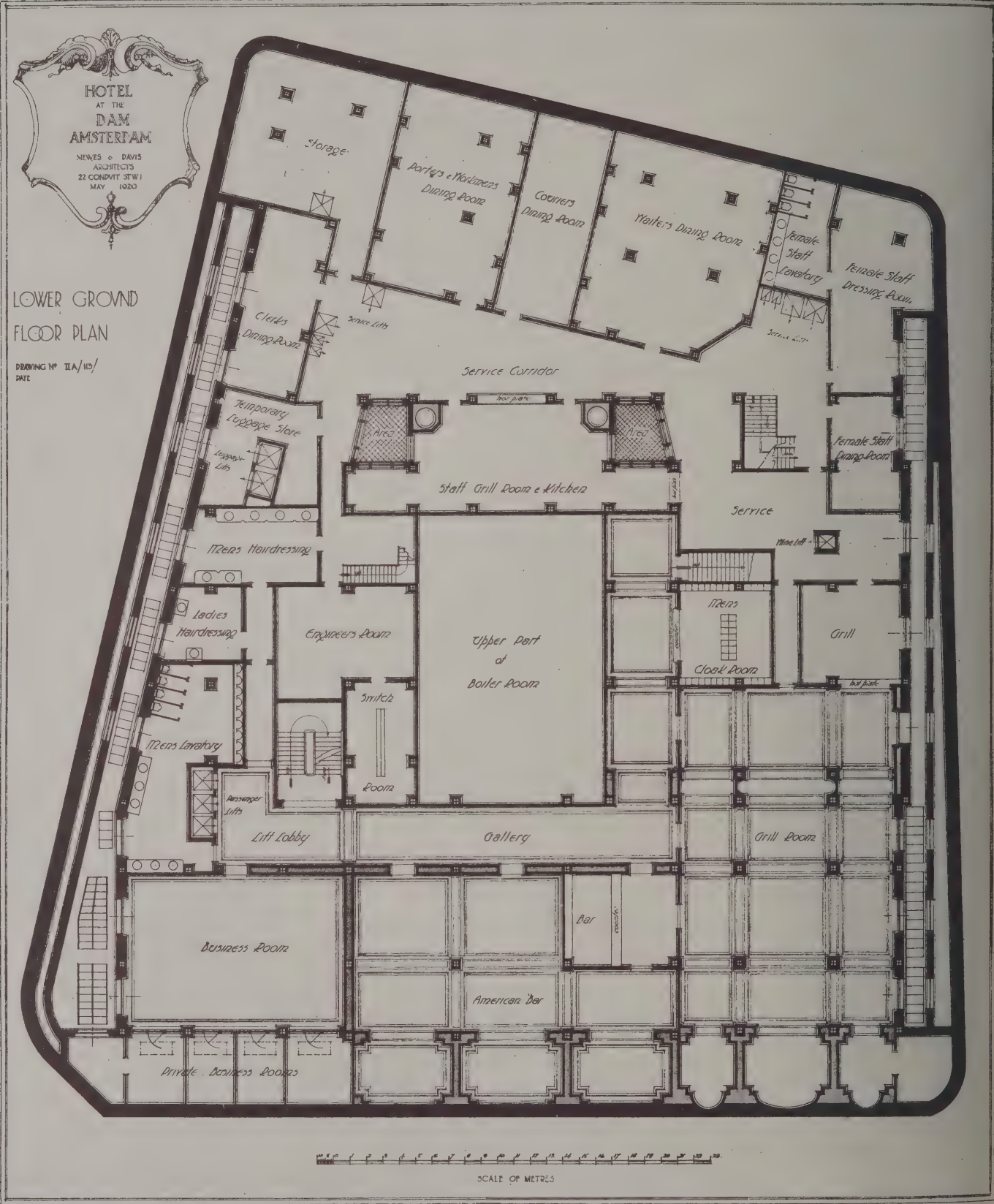
MEWES & DAVIS, ARCHITECTS.







THE ARCHITECT, MAY 20th, 1921.



SCREENLESS PHOTO PROCESS, SPRAGUE-HAYCOCK (PRINTERS) LTD. 69 & 70, DEAN STREET, LONDON, W.1.

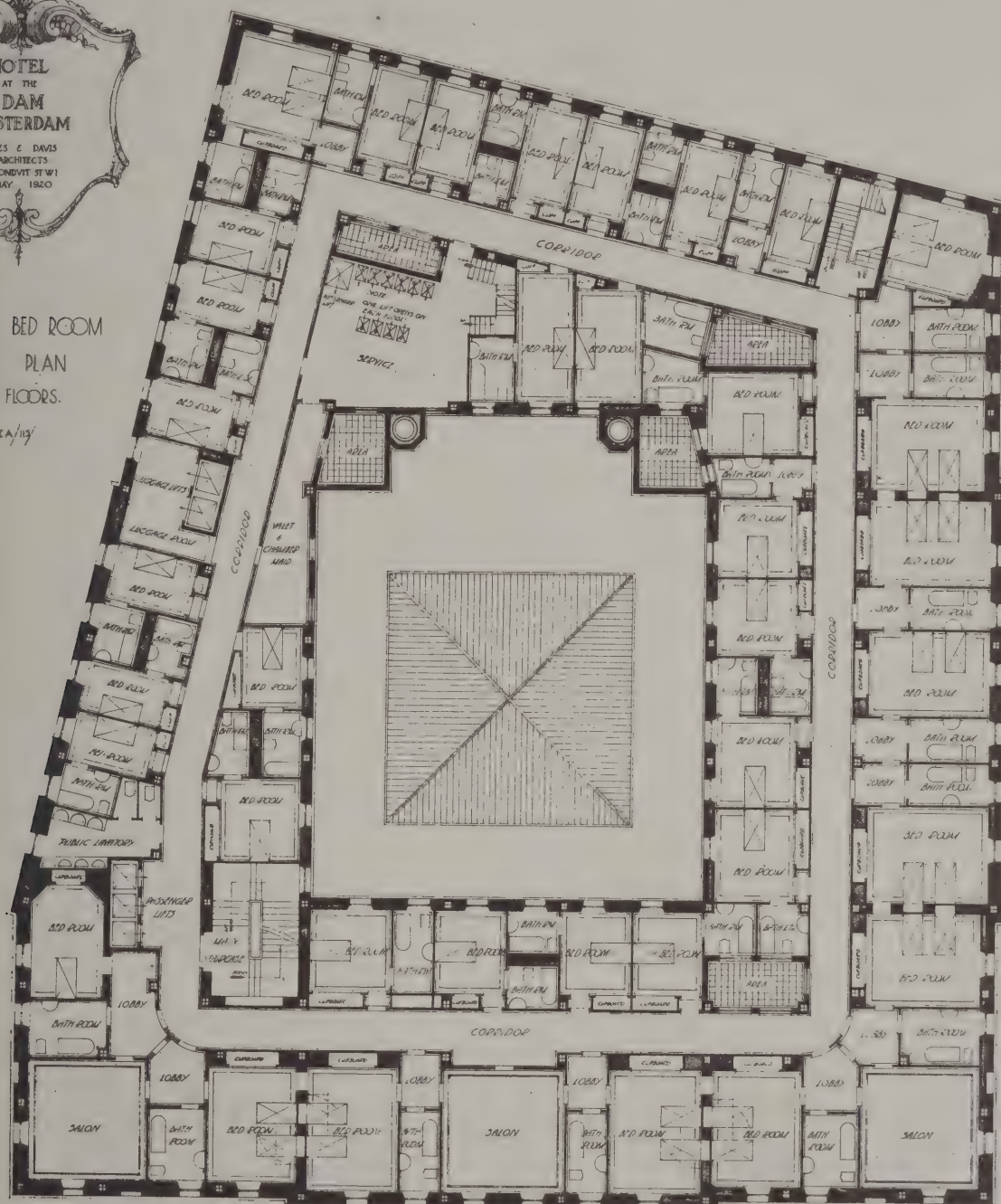
HOTEL AT THE DAM. AMSTERDAM.  
MEWÈS & DAVIS, ARCHITECTS.





TYPICAL BED ROOM  
FLOOR PLAN  
2<sup>ND</sup> TO 9<sup>TH</sup> FLOORS.

DEWITT.5 N° IX A/113/  
DATE



A horizontal scale bar labeled "SCALE OF METRES" with markings from 1 to 27. The scale is divided into centimeters, with millimeter markings between the centimeter numbers.

SCREENLESS PHOTO PROCESS, SPRAGUE-HAYCOCK (PRINTERS) LTD. 69 & 70, DEAN STREET, LONDON, W.1.

HOTEL AT THE DAM, AMSTERDAM.

MEWÈS & DAVIS, ARCHITECTS.









SCALE :  
0.01 PER METRE

AMSTERDAM  
PRINCIPAL



Y 20th, 1921.



HOTEL  
TION

MEWES & DAVIS  
... ARCHITECTS ...  
22 CONDUIT ST. LONDON W.1.

SCREENLESS PHOTO PROCESS OF PRAGUE-HAYCOCK (PRINTERS) LTD. 69 & 70, DEAN STREET, LONDON, W.1.

ERDAM.





of the reconstruction is the fact that in every case, as far as possible, the local architectural characteristics are being retained. Thus, in the south of Belgium the buildings are done with grey stone and slate, and in Flanders with brick and tiles, and the smallest points in moulding, doorways, windows, etc., are being carefully copied. In the case of buildings of any historical interest the Royal Commissions generally consult an authoritative body of experts, the 'Comité des Sites et Monuments.'"

Though we may regret some of the forms which it takes, there can be little doubt as to the soundness and sanity of both France and Belgium in the matter of reconstruction, and the immense amount of work which is being done by the people of both countries.

### Housing in Holland.

APPARENTLY the position of housing in Holland is as unsatisfactory as with us, the following is a description given by the Department of Overseas Trade of the state of things there:—

"The situation has not undergone any improvement, specially in the larger cities where the number of houses is totally inadequate; and in view of conflicting opinions no definite policy for such improvement has been adopted. The principal objections to a settlement are the divergent interests of private builders on the one hand, and building societies on the other, but in no case does it seem possible to build workmen's and middle-class dwellings for reasonable prices at an economic rental. The situation was not improved by a general lock-out in the building trades which occurred on June 14 at the Hague, and on the 4th of that month at Amsterdam and Rotterdam, and which was only declared at an end on September 6. Lack of co-operation amongst the builders, and the unsatisfactory amount of work by the workers were the chief complaints, the latter applying both before and after the lock-out took place."

We think the position may be summed up in this way. If people know they have to provide for their own wants they will do so though they may not compass the ideal. No Government can possibly provide the whole community with what it reasonably should provide for itself, and the Government which attempts to do so will be forced to admit failure.

## Correspondence.

### The Architects' Benevolent Society.

To the Editor of THE ARCHITECT.

SIR,—We desire to thank you for publishing in your journal the lists of contributors who have so generously responded to the letter of appeal on behalf of the Architects' Benevolent Society, which we addressed to the members of our respective societies last December. Our object then was to add a thousand annual subscribers to our list—which had seriously diminished during the late war, while the claims on the Society had increased. Our appeal has resulted up to date in just over half this number—i.e., 501 new subscribers and, in addition, 121 donations.

We desire to thank all those who have contributed, not only in England but in all parts of the world—India, China, Australia, Canada, New Zealand, and South Africa—for their generous response to our letter; and at the same time express our hope that the total number at which we aimed will yet be reached. We are prompted by the great need of the Society and its usefulness to the profession to make another appeal to architects who are not yet subscribers to this, a purely professional organisation, at the head of their list of charitable subscriptions. There is much more we can do, and ought to do, if sufficient funds are forthcoming, for those of our professional brethren who have been by the way, or of their dependents who have, as is unfortunately so often the case, been left insufficiently or wholly unprovided for to face the struggle of life and death.—Yours, &c.,

JOHN W. SIMPSON,

President of the Royal Institute of British Architects, President of the Architects' Benevolent Society.

CHARLES T. RUTHEN,

President of the Society of Architects.

G. GILBERT SCOTT,

President of the Architectural Association.

## Institution of Civil Engineers' Conference, 1921.

To the Editor of THE ARCHITECT.

SIR,—Arrangements have been made to continue this year the series of Conferences which were interrupted by the rebuilding of the Institution premises and the war.

The Conference will be held on Wednesday, Thursday, and Friday, June 29 and 30, and July 1—the mornings of those days being given to discussions upon selected topics, and the afternoons to visits to engineering works.

For the purpose of the meetings, the Conference will be divided into seven Sections: (1) Railways, roads, bridges, and tunnels; (2) harbours, docks, rivers, and canals; (3) machinery; (4) mining and metallurgical processes; (5) shipbuilding; (6) waterworks, sewerage, and gasworks; (7) electricity works and power transmission.

The topics to be discussed at the meetings of each Section will be notified early next month; and it is intended that prints of the Notes introducing the several subjects shall be made available before the date of the Conference. The complete programme, including the list of visits to works, will, it is hoped, be also ready for issue early in June, and will contain particulars to enable members to decide upon the visits they may wish to attend.

The twenty-seventh James Forrest Lecture will be delivered by Sir George T. Beilby, F.R.S., Assoc.Inst.C.E., on the afternoon or evening of Tuesday, June 28—this date having been arranged especially for the convenience of members who may come from a distance to attend the Conference. After the Lecture, the President of the Institution will receive the members in the Library.

The Council feel confident that the members will support this endeavour to revive the pre-war activities of the Institution in a very important and interesting particular.—Yours, &c.,

J. H. T. TUDSBERY, Secretary.

The Institution of Civil Engineers,  
Great George Street, Westminster, S.W. 1.

## The Coal Shortage.

To the Editor of THE ARCHITECT.

SIR,—In view of a possible protracted continuance of the present coal scarcity I venture again to appeal through your columns to all water consumers further to reduce as far as may be possible their use of water. The figures of consumption during the past weeks of the coal stoppage are gratifying as showing a determination by all sections of the public to reduce the demands on the Board's pumping power, but I venture to appeal for a further reduction to the minimum demands of health and cleanliness in order that the Board's stocks of coal may be conserved and any drastic curtailment of supply in any circumstances may be avoided. No garden watering can be justified in any circumstances, and bath water must be reduced to a minimum.—Yours, &c.,

JOHN B. KARSLAKE,

Chairman, Metropolitan Water Board.

May 13, 1921.

A LARGE granite cross, believed to date from about 450 A.D., has recently been taken out of the River Ken bed under Tretheague Bridge, Stithians, and erected on the roadside close by. There are no less than six old Cornish crosses in Stithians parish.

THE "London Gazette" has stated that the Home Secretary has made an order, under the Employment of Women, Young Persons and Children Act, authorising the employment of women of eighteen and male young persons of sixteen years of age and over in connection with the making of bricks from blast-furnace slag at the works of the South Wales Concrete Brick Co., Ltd., Landore, on two-day shifts, subject to the conditions that no worker shall be employed in the afternoon shift in consecutive weeks, and that suitable protective clothing and cloak-room and mess-room accommodation shall be provided.

THE Commissioners of Public Works in Ireland state in their report for 1919-20 that they have accepted the following ancient monuments to be placed under their care:—Ardamullivan Castle, co. Galway; Granagh or Granny Castle, co. Kilkenny; Listowel Castle, co. Kerry; and Miosgan Meva, co. Sligo. The first three were offered by private owners, the last by the Congested Districts Board. The ruins of Listowel Castle are only a small part of the old stronghold of the Earls of Kerry. It is said to have been the last place which held out against the English force of Sir Charles Wilmot in 1600.



## London Art Galleries.

(All rights reserved.)

I PROPOSE this week to give a more detailed account of the very interesting triple show at the Burlington Gallery in Green Street, which I mentioned last week as due to appear. Very noticeable here are the "Imaginative Landscapes" by Clifford J. Beese, treated in water colour, the flat wash being helped in the detail by delicate pen outline. I admired specially among these colour drawings the deep, sombre tones of the scene "In the Valley of Rocks," the imaginative quality in "Solitude," and the bold drawing of "The Pass." Such scenes of wild grandeur may exist even in Europe—we think of the South of Spain near Ronda and of the wild defile into Italy of the Via Mala—but are obviously conceptions of the artist's fancy, though based on Nature. Above these in the upper gallery a Piedmontese artist, Signore Mario Micheletti, shows some clever portrait work with a little group of landscapes, dealing mostly with Nice. Two English portraits are to be noticed here, of "B. A. Campbell, Esq.," and the portrait of a friend of the artist, Mr. Newton. In his "Jeannette," an earlier work, the artist shows still the influence of that fine modern Italian painter, also from Turin, Signor Grosso; but one of the most successful paintings, to my judgment, here is a landscape called "The Cloud-hidden Moon." This nocturne, composed from quick studies of night impressions in the lake country of Northern Italy, has fine quality and spacing; the moon is just emerging behind a bank of cloud, and the whole scene seems steeped in the slumberous beauty, full of hidden diffused light and colour, of a southern night.

At McLean's Gallery, in the Haymarket, was opened last Thursday, May 12, the exhibition of sculpture by Gertrude Whitney which I noted as due in my last week's notice. Mrs. Harry Payne Whitney has acquired by steady work a place in American sculpture, which has included within our own time such brilliant and finished craftsmen as the late Augustus St. Gaudens, as Daniel Chester French and Macmonies; she worked under James Earle Fraser in New York and under O'Connor in Paris, where she seems to have had also the privilege of Rodin's advice and guidance. "The Fountain," which appears in the present exhibition, I believe to be the work which gained an honourable mention in the Salon of 1913, and, in marble, a gold medal at the San Francisco exhibition, a bronze reproduction being acquired by the Metropolitan Museum at New York.

What is shown here is a reduced copy, but this gives us a fair idea of the composition of this group of three figures, which fully deserves its reputation. Personally, I prefer it to either the panels for the Victory Arch, erected in New York in 1919, or the yet more ambitious *Titanic* Memorial, erected by the women of America in memory of those lost in that tragedy of the seas. I admire, however, immensely the head in bronze of "A Spanish Peasant," an excellent portrait study; and in the head of the *Titanic* Monument shown here the relation of the planes is to be praised. Many of the figures exhibited here deal with war subjects, such, for instance, as "In the Trenches," "Chateau Thierry," "The Spirit of the Red Cross," and "Gassed"; apart from these the artist treats the male figure in her "Caryatid" with the same distinction as in "The Fountain," while her "Barbara" is a delightful realistic impression of child life.

The exhibition of new caricatures by Mr. Max Beer-bohm at the Leicester Galleries is now fixed for Thursday, May 19, and promises to be of great attraction, both in subject and treatment. Among those treated by the artist's pencil will be Mr. Winston Churchill, Colonel Repington, Mr. Hilaire Belloc, Mr. Woodrow Wilson, Lord Leverhulme, Sir Edward Carson, and Mr. Asquith as a belated reader and critic of Margot's reminiscences.

At the Greateorex Galleries, in Grafton Street, was opened last week for the months of May and June an exhibition, very appropriate to this time of the year, of "English Gardens and Woodland," by Frances Drummond. Since last I saw her work in these galleries this artist seems to me to have made a definite advance in this class of subject, which she has made peculiarly her own. Her "English Hedgerow," in the suggestion of the massed field flowers without insistence on detail, is admirable, and her treatment of delphiniums, raising the elegant forms clad in exquisite blues—"Delphinium" appearing under this title three times here, and "Delphinium and Poppies"—would be hard to beat; while the "Bluebells" bring to us the very breath of this evanescent moment of the springtime. Technically the charm of these paintings is their freedom and loose handling, though sometimes the artist slips back to a harder method as in her "Herbaceous Border at the Lodge, Iffley."

I reserve for more detailed notice in next week's issue the important exhibition of Ancient Egyptian Art, opened last week in the Burlington Fine Arts Club. It is now twenty-five years since the club held an exhibition of this subject, and since then new discoveries have altered the point of view of this fascinating study, and a new generation of collectors has come forward. A suggestion of great interest, to which I shall return later, is that in their monuments both Babylonia and Egypt drew the inspiration from a common source.

New exhibitions of interest are those of the Elda Gallery—"Sculpture and Paintings by Laurence Atkinson"; Walker's Galleries—"Paintings by Matilda Brownell"; Brook Street Art Gallery—"Impressions of Corsica by Ethel Wright, R.O.I.," and "Designs for the Stage by Guy de Gerald"; and the "Nameless Exhibition" of paintings by contemporary British artists at the Grosvenor Galleries, which is fixed for Thursday, May 19.

S. B.

## Art News of To-day.

We understand that the large painting by Mr. A. J. Munnings, A.R.A., of the "Arrival at Epsom Downs for Derby Week," which is now on view in the fine exhibition of this artist's work at the Alpine Club Gallery, recently described in these columns, has been acquired by the trustees of the Public Picture Fund for the Birmingham Corporation Art Gallery. The exhibition of Mr. Munnings' paintings at the Alpine Club Gallery will remain open, Sundays included, till the end of June. The artist has been recently engaged on a portrait of H.R.H. the Prince of Wales, which could not be finished in time for this year's Academy.

At the Commerce Club Galleries, 316 Regent Street, something in the nature of a "Salon des Rejetés" is now advertised, under the condition that "only pictures rejected by the Royal Academy will be accepted." If we carried through this should prove an interesting and useful experiment.

An important work on a subject of great interest—that of "Medals of the Renaissance"—is now being published by the Clarendon Press at Oxford, from the pen of Mr. G. F. Hill, Fellow of the British Academy. In this work the author surveys the history of the medal in Italy early in the fifteenth century down to the end of the Renaissance, describing its technical development in that land of art, as well as in Germany, the Low Countries, France and England, and giving a critical estimate of the different schools, including chapters on "Medallic Technique" and the "Italian Medal in the Sixteenth Century."

At the Little Art Rooms, in the Adelphi, is being held this month an "informal exhibition" of Rhythmic Pointellism, which should prove of interest on a side-art of which that great artist Previati was a fervent apostle.



## Architecture at the Royal Scottish Academy.

THE Royal Scottish Academy, which holds its annual exhibition in the fine gallery buildings in Princes Street, Edinburgh, has now entered on its ninety-fifth year.

While the storm of housing hustle is subsiding the memorial boom is at its height. From the small brass tablet to the grandiose cenotaph one is confronted with Memorials! Memorials! Memorials! Churches, clubs, villages, towns, and districts have their own memorials, and the monotony of repetition makes one crave for unity of expression in some monument of such heroic magnitude and simplicity which would inspire us to better things and bow our heads in reverence to those who gave their lives that we might live.

The show is not particularly strong this year, and it is disappointing to note that our colonial and continental friends are entirely unrepresented.

Mr. A. N. Paterson submits a fine drawing of a war memorial for the National Bank of Scotland. It is for a lofty interior, and is executed in stone, with marble introduced. An open dog-grate fireplace is surmounted by a large upright panel treatment and finished with a finely worked coat of arms with pediment over. The pediment is supported at each side by two finely-sculptured figures representing valour and sacrifice. The fireplace appears quite insignificant under the lofty treatment of the upper portion, but the design is nevertheless commendable. Thomas Beattie and C. d'O. P. Jackson are the associated sculptors. Mr. Paterson also shows three photos of Scalesceugh, Cumberland, which is very ordinary and rather poor classic.

Sir Robert Lorimer, A.R.A., has three exhibits this year. The most important is his interior view of St. John's Church, Lattingtown, Long Island, U.S.A., for J. Pierpont Morgan, Esq.

The view in colour shows the chancel window at the end of the church. A feature of the design is the high wood-panelled treatment at each side of the window. This panelling is typical of Sir Robert's work, being richly treated with linen-fold panels, finishing at the top by a frieze of elaborately carved canopies, which overhang the panels. A richly decorative scroll design in gold and green ornaments the front of the reredos.

His other two exhibits are colour sketches for war memorials at Selkirk and Kelso. The Selkirk memorial shows a treatment for an acute angle piece of ground at the junction of two roads. An obelisk forms the centre of the scheme, round which an architectural treatment of terraces, balustrades, and steps has been planned. The Kelso memorial is an obelisk of more or less simple design, finished at the top with a small cross.

Both these memorials are not up to the usual standard of the work of Sir Robert Lorimer.

A perspective which is quite arresting is of the new remises, Glasgow, for the Progress Co-operative Society, Limited, the work of Messrs. John Keppie and Henderson, architects. A large, smartly rendered wash perspective illustrates this huge block, which is to form new central premises for the Progress. The building is a well-massed square block of warehouse type, with shops at the lower storey. A feature of the front façade is the breaking of the main cornice for the massing of the front, which looks decidedly weak. The fine strong lines of the main cornice as a binding factor is thus lost. The massing here, again, is rather solid and top heavy. The main entrance is centrally placed, but, if anything, a little clumsy in detail and dumpy in character. The perspective is quite cleverly rendered, and the building has an architectural character which is quite distinctive. Another work by Messrs. Keppie and Henderson, the additions, in Douglas Street, Glasgow, to the City Glasgow Friendly Society's building. A pen-and-ink perspective by McGibbon illustrates this extension. The building as it exists is of the plain classic type, which has been more elaborately treated in the extension. A

lop-sided motif is crowned by an ambitious-looking dome, a feature which is quite out of place with the building.

A charming piece of refined architecture is the competitive design for the War Memorial Halls at Sheffield, by Mr. James B. Dunn, A. A delicate Walcott perspective in colour sets off the simple lines of this very pleasing building to advantage. The site is a corner one, with the main entrance on the corner. The building masses up nicely to a low flat dome of refined outline. The Roman-Doric order, introduced at the motifs, gives a pleasing contrast to the plain masonry of the building.

Mr. Dunn also exhibits a frame of war memorials which are quite interesting. The one for Hawick is undoubtedly the best. It takes the form of a square, well-massed obelisk, with standing figure at the base, and is approached by a flight of steps. It is architecturally good without in any way being overdone.

Messrs. Watson, Salmond and Gray show a good drawing of the Council Chamber for Glasgow Municipal Buildings extension. A large, finely-coloured detail section shows the Council Chamber. The chamber, which is octagonal in form, is treated in a fine academical manner. A point of interest is the splash of colour given to the Glasgow Coat of Arms, which is a central point in the decoration. The roof-lights at the top of the dome look as if they were a little bit disconnected, and might quite well be simplified.

A good coloured perspective is given of the accepted design for the Corstorphine Parish Church War Memorial, of which Mr. William Davidson is the architect. The view is of the interior of the church, and shows one of the lofty arched openings partly filled up, with a lower arch having a richly carved stone frieze over it. In the centre of the frieze is a cross, to the left are carved knights of old on horseback coming towards it, and on the right side coming towards the cross modern infantry are carved, evidently symbolic of past and present meeting at the cross.

Mr. Davidson also shows a war memorial scheme for the Church of St. John the Baptist at Corstorphine. The memorial takes the form of five richly carved panels placed on the wall under the chancel window. A frame of nine photos of war memorials are also shown by him, but these are pretty ordinary in type.

Mr. G. Washington Browne, R.S.A., has two exhibits of War Memorials, one the original design for the 6th Gordons' Memorial, the other is for Arbroath and is in course of erection. The Gordons' Memorial is of Greek design. The feature is a centre motif of two Greek Doric columns, finished at top with a blocking course on which a lion reposes. Side wing walls extend at each side of this centre motif, on which panels are formed with the names of the fallen inscribed. The design is good, although not strikingly original. The Arbroath Memorial is a well-massed obelisk, but the design has been spoiled by placing swags, which appear weak, on the side panels.

The Sculpture Court of Aberdeen War Memorial is a simple domed classic interior by Alexander Marshall Mackenzie, LL.D., R.S.A. The perspective is in a bluish tone of wash and not too strong in draughtsman-ship.

A worthy set of three perspectives of a house in Argyllshire is the work of Mr. Oliver Hill. The sketches are highly artistic, being softly rendered in black crayon. The artistic merit of the design is also highly commendable. Another house worthy of note is by Messrs. Stewart and Paterson. Five photos are shown of this house, "The Crossways," Helensburgh. The photo of the doorway is very good, despite the upper panel and scrolls at sides being a bit overdone. Other works by the same firm is Dalmuir U. F. Church—a good piece of Gothic work—and a drapery warehouse at Clydebank, all illustrated by photographs.

A very excellent set of War Memorials softly rendered in pencil are by Mr. William Kelly, LL.D., A., a very expressive one being his sketch for the Lower Deeside memorial. Its suggested site on the plain, and the effects he has obtained of the grouping of four monoliths,



is suggestive of the Druidical stones of Stonehenge. The set of photos of memorials which he also shows do not appeal to one so much as his sketches.

Two or three war memorial panels in colour by Messrs. Cullen, Lochhead and Brown have quite a nice architectural touch about them, so also is the War Memorial at Girvan by Mr. James A. Morris, A.

Mr. Pittendrigh MacGillivray, LL.D., R.S.A., exhibits three memorials, which are without special interest. An interior view of a church at Hampstead Garden Suburb by Mr. Ivor Beaumont is catalogued as a War Memorial Scheme showing the Ascension and Cenotaph. The sketch, although quite good, shows no Cenotaph, the Ascension, however, being visible. Another memorial by him is without special interest. Four good memorial photos are by Mr. Reginald Fairlie. A neat piece of draughtsmanship is the war memorial design of Messrs. Fairlie, Reid and Forbes.

A memorial rededicated by Mr. Alexander G. R. Mackenzie appears overdone, but a shop front by him looks simple and restrained, with an old-world look about it, the windows being divided up into small panes.

Mr. Macgregor Chalmers, LL.D., has a fine pen-and-ink perspective by McGibbon of the Scott Memorial U. F. Church, Kirkintilloch. The church has a high pointed spire and is in a decorative Gothic style quite away from the fine severity of the Norman, into which Mr. Chalmers gets such charming feeling. It is regrettable that he has not got some of his usual Norman work to show. Mr. James Shearer shows a good detail drawing of the staircase tower, Central Library, Dunfermline. It is a nicely drawn detail and displays originality and character.

Two ambitiously coloured interior perspectives of the Orient liner "Ormonde" are the work of Mr. Robert Whyte. The one of the Lounge appears out of perspective in the foreground, and both are much too crowded with furniture, conveying anything but a restful effect.

Messrs. Begg & Lorne-Campbell's sketch for a theatre front is poor. Their design for the Watsonian War Memorial is better. Both are shown by perspective sketches in wash.

Messrs. H. E. Clifford & Lunan have three fine photos of Portland U. F. Church, Troon. The George Watson's College War Memorial by Mr. J. A. Carfrae is quite a good Greek design, although its position in front of the main entrance is a questionable improvement to the architectural dignity of the college. The New Parade Cinema, Glasgow, by David M'Kay Stoddart, shows an attempt at originality which has failed. A simple pencil perspective illustrates an ordinary type of country house and is the work of Mr. Frank Ed. B. Blanc. Two photographs of doorways are shown by Messrs. Oldrieve, Bell & Paterson. The one of the North Leeds Branch Bank is quite good, but the Fountainbridge Branch Bank entrance is very poor.

Messrs. Henry & MacLennan show three photographs of a house in Perthshire, which are unemotional classic interiors. Quite a good set of photos, however, of The Priory, Dunbar, is sent by Mr. John Jerdan. A good colour sketch of a cottage hospital at Meikle, Perthshire, by Mr. Charles G. Souter, is without architectural distinction.

Although the exhibition as a whole is architecturally poor, the memorial designs generally are quite strong pieces of design.

## Competition News.

MEMBERS and Licentiates of the Royal Institute of British Architects must not take part in the Hagley War Memorial Competition because the conditions are not in accordance with the published Regulations of the Royal Institute for Architectural Competitions.

MR. G. C. INSKIP, F.R.I.B.A., has resigned the Honorary Secretaryship of the R.I.B.A. in Australia after a period of twenty years' service, and Professor Leslie Wilkinson, F.R.I.B.A., of the School of Architecture, University of Sydney, has been appointed as Hon. Secretary of the R.I.B.A. in Australia in his place.

## The Institution of Civil Engineers.

At the annual general meeting of the Institution of Civil Engineers the result of the ballot for the election of officers for the year 1921-1922 was declared as follows:—

President, Mr. W. B. Worthington (London); Vice Presidents, Dr. W. H. Maw (London), Mr. Charles J. Morgan, C.B.E. (London), Mr. Basil Mott, C.B.E. (London), Sir William H. Ellis, G.B.E., D.Eng. (Sheffield); other members of Council, Dr. C. O. Carpenter, C.B.E. (London), Mr. G. M. Clark, M.A. (South Africa), Dr. P. C. Cowan (Dublin), Colonel R. E. B. Crompton, C.B., R.E. (T.) (London), Mr. Maurice Deacon (Matlock), Sir Archibald Denny, Bart. (London), Mr. W. W. Grierson, C.B.E. (London), Sir Robert A. Hadfield, Bart., D.Sc., D.Met., F.R.S. (London), Mr. Kenneth P. Hawksley (London), Sir Brodie H. Henderson, K.C.M.G., C.B. (London), Mr. E. P. Hill (London), Mr. G. W. Humphreys, C.B.E. (London), Mr. Summers Hunter, C.B.E. (Tynemouth), Mr. H. G. Kelley (Canada), Mr. C. R. S. Kirkpatrick (London), Mr. F. W. MacLean (New Zealand), Mr. H. H. G. Mitchell, O.B.E. (India), Engineer Vice-Admiral Sir Henry J. Oram, K.C.B., F.R.S. (Rudgwick), Mr. Frederick Palmer, C.I.E. (London), Mr. George Richards F.C.H., B.A. (India), Captain H. Riall Sankey, C.B., C.B.E., R.E. (ret.) (London), Sir John F. C. Snell (London), Mr. W. A. P. Tait (Edinburgh), Mr. E. F. C. Trench, C.B.E., M.A. (London), Professor W. H. Warren, LL.D. (Australia), Sir Alfred F. Yarrow, Bart. (Hindhead).

This Council will take office on the first Tuesday in November 1921.

## "The Architect" Fifty Years Ago.

MAY 20, 1871.

ACCORDINGLY, we actually find that the acquirement of the practice of craftsmanship has more to do with architectural success artistically than anything else. It is said there are a few—probably only a very insignificant number—who, amongst their brethren of the T Square, are occasionally constrained to proclaim themselves heaven-made architects of special aptitude, for whom the divine afflatus has done all and the tuition of their masters nothing; but this phenomenon is eccentricity rather than positive unwisdom, and, if exhibited by men of years at all, is to be put down to the results of the excessive study of obsolete conceits, whether mediæval or classical—becoming thus itself an evidence, not of the needlessness of instruction, but of the effects of its excess.

In architecture, accordingly, we are disposed to offer every possible encouragement to patient and persevering study, and this to the disregard altogether of the maxim that art cannot be taught, as one which is not applicable to this art, whatever may be the case with others. We are willing to admit that, once fully instructed and perfectly trained, the architect of artistic aptitude is far beyond his inapt rival in all that contributes to the finish of graceful design; but in every such case the preparation has done more than the predisposition, and so much so that with the majority of creditable designers the primary artistic faculty may be clearly seen to be of very small amount. We submit the verdict, therefore, for our readers' consideration, that the question—Can Art be taught? must, as regards architecture, be answered distinctly in the practical affirmative, and that the necessity for persevering study under proper guidance lies heavily upon every youth who aspires to be a successful practitioner, whether in the most or the least elevated walks of artistic effort.

MR. S. S. REAY, F.R.I.B.A., of Orchard Street, Bristol, is the architect for a tobacco warehouse, which will be the second largest in the United Kingdom, now under construction at Canon's Marsh.

THE Civil Service Commission inform us that the Open Competitive Examination for the post of Assistant Examiner in the Patent Office will begin on Tuesday, July 26, 1921, instead of on Tuesday, July 12, 1921 (as stated in the printed Regulations), and will last until Saturday, July 30. Any candidate who has attained the age of twenty on July 26, 1921, and has not attained the age of twenty-five on July 12, 1921, will be regarded as eligible in respect of age to compete on this occasion.



## Saunders v. Beadel.

IN the King's Bench Division before Mr. Justice Greer, last week, John Thomas Saunders, an architect and surveyor, of Linden Gardens, Bayswater, brought an action against Maurice Beadel, of 9 Albert Road, Regent's Park, claiming £232 1s. 8d. for professional services rendered.

Mr. Ernest Charles, K.C., for the plaintiff, said the work done concerned the conversion of 9 Albert Road into three maisonnettes. By a letter of October 11, 1918, defendant instructed plaintiff to inspect the premises and estimate the cost of the conversion. Subsequently he was instructed to get the work done, and it was arranged the plaintiff should receive seven and a-half per cent. of the total cost.

The defence raised, said counsel, was that the defendant was only liable for two thousand pounds as the cost of conversion, and therefore he was not liable for the full amount claimed. It was defendant's contention that he had imposed a limitation of £2,000, whereas the work had cost £3,049, and there had been an action between the defendant and the builders, Messrs. Vare Brothers, for the recovery of the unpaid balance. The referee had found that there was no limitation between the builders and Saunders, and gave an award in their favour. The referee must also have decided that the charges were fair and reasonable, being a contract upon prime costs and 20 per cent. profit.

As a matter of fact, said counsel, no limit had ever been imposed upon Saunders. What defendant did say was that plaintiff should go to see the builders and ask them to keep the costs down to about £2,000. The builders immediately pointed out that it was utterly and absolutely impossible. Moreover, Beadel was pressing Saunders to get the flats finished because he wanted to let them. That necessarily prevented the builders from keeping down the costs. Beadel must also have known that the £2,000 suggested was an impossible limit, since he knew from the vouchers sent in that in December, when one flat was completed, £1,315 had already been spent.

Plaintiff, who said he was a F.R.I.B.A., gave evidence supporting counsel's opening. He denied that any limit of £2,000 was ever imposed upon him. He had been asked to give a rough estimate of what the total cost would be, and had given his estimate of £2,000 accordingly. When the work was entered upon, it was discovered that the roof was leaking and that had to be attended to at once.

In cross-examination plaintiff denied that he had been negligent in keeping Beadel informed of the progress of the work and the state of the costs. He had sent the vouchers in in good time. Questioned as to his estimate of the work, which was part of the work eventually completed, plaintiff would not agree that he was as much as £600 out. In addition to the alterations there was repair work which had not been calculated, and over which he had no control. In further examination plaintiff said the figure of £2,000 had never been mentioned between him and the defendant. He had not even given it as a rough estimate.

Mr. Hawke, K.C., who appeared for the defendant, pointed out that before the official referee plaintiff had said he gave £2,000 as his estimate. Witness thereupon admitted that he had given the figure as an estimate. He agreed that it would be his duty to know exactly how much the work was costing, and when the £2,000 figure was passed he immediately informed Mr. Beadel of the fact.

After hearing evidence, in the course of which the defendant and his wife emphatically stated that they were positive in their instructions to the plaintiff not to allow the cost of the alterations to exceed the sum of £2,000, his Lordship listened to protracted arguments of counsel for both sides. For the plaintiff it was contended that he did all an architect humanly could do when dealing with a prime cost contract.

In giving judgment, his Lordship said that he was satisfied that plaintiff was not negligent, as defendant alleged, in not having specifications or for any delay in supplying accounts.

With regard to the allegation of negligence in supervision of the work by not informing defendant from time to time as to the cost of the work, his Lordship said that it was difficult to keep an adequate check on the cost of work as done in that case. It was suggested that the plaintiff could not have done more than he did. His Lordship did not think that was correct. He thought plaintiff might have made some weekly sketch of the labour and materials expended on the job. In that way he would have known the facts and be in a position to say, roughly, how much should be added to the cost of the work as it proceeded.

In January plaintiff estimated that the work could be done for £2,000, but if he had known the true facts he would have known it was quite impossible for the work to be finished for anything near that sum. His Lordship thought that negligence was made in that estimate.

Defendant had said that he told plaintiff he wanted the work completed for not more than £2,000, but plaintiff allowed the contractor to go on with the job after he had said more than £2,000 had been spent. Whether or not defendant suffered very much damage was another question, but there was a breach of duty by plaintiff to his employer.

Defendant was committed to the completion of the work, and having regard to the conditions of the trade at the time, his Lordship did not think that the work could have been done at a much less amount. For plaintiff's breach of negligence he would disallow £100 on his claim, and therefore award him judgment on the claim for £132 and costs. There would be judgment for defendant on the counter-claim, with nominal damages for 40s. and costs, saving so far where costs had been increased by the issues on which defendant had failed.

His Lordship added that there was no imputation either upon plaintiff's skill as an architect or upon his bona fides.

## R.I.B.A. Unification and Registration Committee.

THE following resolutions were passed at the meeting on Thursday, May 12:—

1. That the principle of Scheme A—namely, the bringing of all the architects of the United Kingdom into membership of the R.I.B.A.—be adopted as the basis for unification.
2. That the matter be referred to the Sub-Committee to consider details and report to the Main Committee.
3. That the Committee recommend the Royal Institute to draft such alterations to its Charter and By-laws as may be necessary to comply with the principle of Scheme A, adopted this day by the Unification and Registration Committee, and to confer with the Council of the Society of Architects as to conditions of membership.
4. That six additional representatives of the Allied Societies be selected by the Chairman and Vice-Chairman from the members of the Main Committee to serve upon the Sub-Committee.

THE Scottish Board of Health report that, as a result of arrangements made by them, whereby the Valuation Office of the Board of Inland Revenue is available to conduct negotiations on behalf of local authorities, considerable reductions have been effected in the prices asked by owners of land. At April 25, 1921, the Valuation Office had effected a reduction of £192,979, or 26.83 per cent., on the prices asked by owners, the adjusted price averaging £177 per acre.



## Architectural Education.\*

By L. SYLVESTER SULLIVAN, F.S.Arc., A.R.I.B.A.,  
Vice-President of the Society of Architects.

WHAT are we to do to help the student attain his ideals, or to discourage him from them? An architect's deeds and misdeeds live after him and endure, perhaps more than those of any other. Then let us deter him, unless he be of the gifted undeterable, while he be yet young. It is not merely a kindness, but a duty from the first to encourage the elimination of the square peg. But for those others, the round pegs fitting trim and taut in their round holes, let us create everything in the way of inducement — facilities, libraries, schools, masters, travel, scholarships, prizes, and that crown of all work the opportunity and fact of achievement.

What facilities and opportunities for education have we to offer? In the old days there were not much; later something more, nowadays something more still, but yet not enough. In the mediæval ages of the nineteenth century there were articles and the grand tour for the monied; later there were articles, schools, and the grand tour still for the monied. Nowadays articles have all but dropped out—Education and Charles Dickens be praised! —and there are more and better schools, with extension of scholarships and prizes, which in their train bring extended facilities of study and travel for the successful student. Before the war the scamper on the Continent was becoming available for anyone with the luck of tuppence in his pocket. That scamper is becoming possible again, so that even without success in the prize-list the student need not have to wait long for that enlargement of architectural vision travel brings.

It may be said of the schools that there is room for every one of them, provided each is kept at the boiling-point of progress. Stagnation we are better without as damping to effort. The more virile the house-mistress, the cleaner, sweeter, and brighter will be her pans, and the sooner will they come to the boil. So, too, the more virile the faculties of our schools the more, virile and imaginative the incentive of the housemaster with the consequent inspiration of the student.

The schools, as distinct from the academical bodies, at any rate, are recovering, or have recovered, from the stagnation induced by the latter years of the nineteenth century, which must surely have been the outcome of loose thinking and interference on the part of the dilettante and critic of the day. In the result these critics, combined perhaps with the half-comprehending worship of steam and machinery, have sloughed off from us the protective hide of craftsmanship and tradition, and only now are we beginning to value the comfort of things lost and to reclothe ourselves as best we may. However, we know better now and must not be mistaken again. Let "Architect for the Architects" be our motto. Architects and practice in our schools. Architects and practice in our presses. Architects and practice in our institutes and academies. Let there be no room for the pedagogue, the dilettante, or the mere uninformed critic. Practitioner in place of Panjandrum wherever architectural education is sold, given, or assumed; and by practitioner is meant the master practitioner of our ideal. Teaching implies giving, and who has more to give than the architect in the creation and the passing on of his tradition and craft. Not that we have not already got him to some extent both in our schools and our Press, but his value in both is not sufficiently recognised, and more especially so in our daily Press.

The days are past when Ruskin's "Seven Lamps," Leeds' "Handbook of the Orders," and Parker's "Glossary" were deemed sufficient equipment and library both for the architect and critic.

Examination now is recognised more as the test of training rather than cramming, and is even being done away with on production of proof of that training. An enlightened Board of Admiralty led in that matter some

years ago, while the R.I.B.A. has gone a long way in this respect. Examination, in enlightened forms of it, we may suppose, must remain permanently for certain purposes, as in the competitions for our big scholarships and prizes; and there must be recognised the educational value of public competition, which many of us, unable to afford other schools, have attended with amazing regularity in face of repeated rebuff, disappointment, and bad assessment. Rebuff and disappointment will remain, but bad assessment must, assuredly, disappear as the training of the master-architect becomes traditional, pushing out the mere lobbying person who too frequently gets appointed in these affairs.

It is not everyone who can come to our great centres for the refreshing fruits of knowledge, and so it becomes necessary to work outwards from the centre, but little has yet been done in this way, because perhaps its value has yet to be fully realised. A great extension of our circulating and lending libraries, or the institution of new ones for the purpose, to which would be added travelling exhibitions of useful drawings, fine drawings, and scholarship designs, perambulating the country at regular intervals. Access to and the use of these libraries and exhibitions should be open to the public, and made known to and drawn on by local educational and other bodies, and used as propaganda not only to educate the architect, but foster the taste, delight, knowledge, and civic pride of the public. The public does not know much about us or our ideals, but that is greatly our own fault.

Here, again, examinations should spread outward from the centre, and be so arranged that they could be taken in distant places, or at home even, with the creation of travelling Boards of interviewing examiners to go to those who cannot come to us, and with a rising standard of achievement. The facilities offered should be widened. I would like our books and our knowledge to be available to the elementary and technical schoolmaster, the trades unions, the carpenter, mason, ironworker, and apprentice — indeed, anyone with a connection or interest in our art. So, perhaps, can tradition be fostered again. The revolution in higher training brought about through the ægis of the Beaux Arts Committee is at least progressive and constructive. The First Atelier of Architecture founded by this Committee, made possible by the backing of the Society of Architects and its friends, spread the inspiration of its method by capturing the students, some of whom are now professors in other schools, and have carried its lights into the more distant parts of the Empire, into Canada, Australia, New Zealand, India, and South Africa. A group of Ateliers still growing in number has now been taken under the wing and patronage of the Royal Academy, but it remains for the group to see that it has not been adopted with a view to overlying and suffocation by its somewhat somnolent adoptive-mother.

The Soane, Rome, Jarvis, Victory, and other scholarships are worth going for because they are the means to further education, though sometimes one doubts, in some respects, if some of the avenues they open are worth pursuing. For instance, the contemplation of ruins, I must confess, has always left me cold, and wondering if there is need of that contemplation being subsidised, and if it is not a fetish handed down by the noble ancients of the nineteenth century. I would like to see a prize given carrying with it a scholarship at a "British School in America," for the study and contemplation of a new world where work and traditions are being formed beneath our eyes on a scale incomparably greater than any of old. At least we need not decry the new merely because it is new, but rather let us get from it every ounce of educational value.

Preliminary education should be of the best obtainable within means of pocket, but need not necessarily be of the more expensive Public School and University type. Indeed we may be inclined to advise against the courses leading to certain University degrees in Architecture as unpractical and more for the dilettante than the diligent. The sooner the boy realises it is work he has to face all through his life the better, so let him stay at his school a year or so longer than he might have done,

\* Extracts from a paper read before the Society of Architects on May 12.



getting a severe grounding in mathematics, mechanics, and modern languages; at the same time taking drawing from the round, geometry, elementary perspective and modelling, all of which he can get well taught in the local Art School. Not much in the way of "Orders" and "Styles" at this stage, which he may have to unlearn, and will certainly get with less tedium under direction later. Let him do such work as this off his own bat if he likes, but he will best wait for teaching when he gets into the hands of the architect masters. Give him "Martin Chuzzlewit" to read that he may learn something about Pecksniff, his mind and manner, and urge him to read French, Italian, and (shall we say it) American, in the vernacular, for his own amusement and subsequent use, for these tongues will be valuable to him later on in opening the ways into these countries and the reading of their fine and logical books on his art. And see, finally, that he gets one or two, at least, of his holidays abroad, rubbing off as early as possible his insularity, and any idea that England and its Arts are the only good things in the world. If he can have a carpenter's bench of his own and occasionally hit his thumb so much the better.

We may now assume the boy to have reached the age of nineteen or thereabouts—and we come to the delicate question of Articles. Delicate because we know, maybe, that he and his premium are ours for the asking. What a chance for Pecksniff! I can picture him, in a dignified way, of course, turning in his grave—his monumental grave, for surely it must be monumental—at the bare idea of such a chance as this being let slip, and I can almost feel my own hair stand up on end in front like his, at this opportunity for shaping a boy's ends! But I say "No!" to Articles,—and in my mind's eye I can see an incensed Pecksniff wrapping his winding sheet about him togawise and stalking off "to see somebody about it."

And why not Articles? Is not Pecksniff reason enough? If not, I will say that no architect has time to devote to any pupil the attention and training the pupil ought to have in return for his Articles and his fees, even if he knows the lines that training and attention ought to take; and I will say further that so far as my experience goes I have met few of outstanding merit among all the article'd pupils I have rubbed shoulders with in the course of twenty-six years, though no doubt there are such. Better to spend the three or four hundred pounds the articles would have cost, in the architectural schools, or let the boy relieve his father if he is able by winning entrance scholarships into these schools, for there the training is systematic, upward and progressive from year to year, so that at the end of the fourth or fifth year the boy will have left his article'd contemporary far behind in knowledge of architecture, bar perhaps in office usages, which can be very quickly picked up afterwards. He will have taken such qualifications and diplomas as the profession bestows on its votaries in his stride, and, I venture to think, have a happier temperament ingrained in him than the disgruntled outlook on life the disappointed article'd-pupil seems to acquire as the chief attribute of his partially wasted years. In passing, too, he will probably have had a shot for the big scholarships and prizes and, maybe, has pulled off one or more of them to his further advancement in learning.

On the other hand, if he has found his vocation to be a mistaken one he will be advised so, and will easily change it without the disadvantage of breaking articles.

Another course may be taken, where means are very limited, for the boy may be got into an office as an "improver" as it used to be called, for little or no pay at commencement, but without articles. This has a good deal to commend it if it can be done in conjunction with periods in the schools or ateliers and with fairly frequent changes of office, for the boy will pick up experiences of varying kinds as he goes, and I would particularly advise him not to stop too long in offices of a specialising kind. Incidentally he will probably improve his pay

at each change and avoid risk of becoming ruttish or rusty on his hinges. But in any case pay is not brilliant. This brings me to the end of my advice and to another point. I said earlier that we should give our round peg the crown of all, the opportunity and fact of achievement. We have as a profession no such opportunity to give, but I can see no reason why the Government should not do so. I suggest that some item of the work done by the Office of Works, and other public bodies such as the London County Council, should be set aside every year, or every year or so, as commissions to be given to the successful winners of the big scholarships at the completion of the studies these scholarships have brought. I do not advocate for a moment that these young architects should be taken on to the staffs of these bodies—that is generally a soul-destroying business, and there is too much reason to suppose that these young men would become mere docketing and minuting machines. The work should be given them as commissions, under the direction of the First Commissioner of Works and the Chairman of the L.C.C., in conjunction with and encouraged by the President of the Board of Education. If preferred these promising young men might work under the advice and safeguard of some responsible official, so long as the functions of that official were limited. I cannot see that such a scheme would cost the Government much, if any more than it does now. The encouragement and value to the cause of the art of architecture would be incalculable, and I am convinced that it would be to the benefit of Government and the country as a whole.

## New Books.

"Modern Painting.—II. The Work of P. A. de Laszlo, M.V.O." With a foreword by A. L. Baldry. 1921. The Studio, Ltd. 7s. 6d. net.

THE present work is the second in order of this attractive series—the first volume of which, already noticed in these columns, having dealt with the work of Laura and Harold Knight. The volume before us here, treating the portrait art of Mr. P. A. de Laszlo, is fully on the level of the earlier volume in the fine quality of the illustrations. Particularly successful plates are those dealing with children in "The First Drawing Lesson" and "Bubble-blowers," and, again, in the oil painting there reproduced of "Johnny." Mr. Laszlo is generally very successful with his paintings of child life; and Mr. Lys Baldry, in his admirable "Foreword" to this volume, says, in speaking of the very pictures I have just mentioned,—"in the pictures of children there is a delightful suggestion of the sympathy with which he views his subjects and of his ready response to the appealing charm of youth."

The artist was born at Buda Pesth in 1869, of humble parentage, but with an inborn love and facility—almost resembling that of the late Anders Zorn—for art creation, which he trained in the Buda Pesth Industrial Art School, and later in Munich and Paris. For years past he has, however, made his home in England, and about six years ago became naturalised as a British citizen. In his training he learnt at Buda Pesth and Munich—in Mr. Lys Baldry's opinion—accurate draughtsmanship, in Paris the value of simplification, the need for persistent observation of his subject.

One of the most attractive reproductions here is that of the interior at Chequers, in which Lord and Lady Lee appear seated in their home surroundings. Among the portraits reproduced those of the Right Hon. Austen Chamberlain, P.C., M.P., and H.H. the Amir Faisul Ibn-Ul Hassan are successful, and a very charming piece of colour is the three-quarter length figure of Madame Olga Edwards, wearing a dark veil, and in an easy natural pose.

The present volume is a welcome addition to this promising series. S. B.



## The Economic Unit Principle applied to Large Cities.

By JOHN LATHROP.

### THE GEOMETRIC INCREASE IN THE COST OF PUBLIC UTILITIES.

A LAW of philosophy is that a principle is universal, applicable everywhere and always. In the science of engineering, the principle of the Economic Unit is laid down. It must therefore be true that it applies to cities. When such application is made, we find explanation of many phases of the exceedingly large city—phases which baffle the one who seeks otherwise to harmonise such a city with the normalities of life, business, traffic, sanitation, and living costs.

Theoretically, for instance, living costs should be lower in a large city, and traffic charges also lower per unit. Precisely the opposite is true. Costs rise in a city after it has reached a certain magnitude, the increase being geometrical. It is of course impossible to draw a line of demarkation, going beyond which these costs increase faster than population and activities. This line of delimitation must of necessity vary, local conditions and the character of the city determining in each separate case.

We are justified in asserting, however, that in the case of a given city there is an economic size, up to which, under current practice in city development, society obtains the benefits of co-operation and community facilities. But, when we violate the law of the economic unit, under existing city building practice, we involve ourselves in a maze of abnormalities, each one producing something undesirable and usually costly.

In no instance, thus far, has an extremely large city escaped the application of the law of the economic unit. Such escape is impossible, because, when a city grows beyond that economic unit size, it is attempting the impossible—to escape a law which is universal, and Median and Persian in its inflexibility.

### AN ILLUSTRATION—NEW YORK'S TRANSIT SYSTEMS.

One of the most brilliant illustrations of the foregoing is the experience of New York City with its transit systems. Twenty years ago, New York constructed an underground system, with extensions to the elevated railways and tram lines, which cost (normal) £15,000,000. It had been hoped that this system would solve intra-city traffic problems for many years to come. The hope was frustrated. Congestion was worse before five years, indeed, in two years, than it had been before.

One discovery was made—that, prior to the installation of the new system, there had been a repression of traffic, a discouragement of persons moving from point to point on account of the extreme discomfort caused by overcrowding the elevated and tram vehicles. The new system released this repressed traffic, and the condition was worse than before.

There was also, of course, the increasing population to add to the congestion.

Soon after the new system was opened plans were begun for future extensions. These plans were finally perfected and construction begun about ten years ago, or about ten years after the first underground system had been built. These extensions are to-day only well installed. Congestion is not relieved.

Even while these latest extensions were in course of construction, the responsible engineers testified, in an official inquiry, that, in their opinion, congestion would be as bad in less than five years after opening the new system as before.

It is interesting to analyse this prediction. It was based in part on a technical estimate of traffic demands in New York, according to recognised laws of computation. But it was that only in part; for the prediction was also predicated on the law of the economic unit, in the light of the obvious fact that New York City had grown beyond the economic size; that by no known measures,

adhering to current city building practices, could it be rendered economic; and the huge municipality had saddled itself with the unperformable task of providing transit facilities without proportionally increasing the cost of carrying each passenger.

### THE AMERICAN TRADITION OF FLAT FARES.

This task was the more difficult, because of the tradition in America that each passenger on a city line, elevated, underground, tram, or 'bus, must be transported for a "flat fare" of five cents—twopenny ha'penny—no matter how far he travel within the boundaries of a municipality. It had always been five cents for a ride of one block; yet the fare from Battery Park—the southernmost end of Manhattan Island—to 242nd Street was five cents, so that the function of transporting a passenger fourteen miles was performed for the fare from Kensington to Piccadilly Circus.

The public, unversed in this simple and universal law of the economic unit, raged at the proposal that fares be increased for all intra-city journeys, or that graduated fares be adopted for different distances. The people argued that, because the city had grown larger, with more persons to be accommodated, the transit companies could carry each passenger for less operation and construction costs per passenger. Whereas, the fact was this inordinate increase and tangle of activities created costs which would in justice and economics entitle the companies to charge more for each passenger. The law of the economic unit would not be denied.

Another application of this law was in the case of the telephone service in New York. The late Mr. Theodore N. Vail, executive head of the great American Telephone and Telegraph Company—America's premier system—in an interview with me said:—

"The most difficult problem our company has to solve in the large cities is to submit in our engineering and operation of plant to this law of the economic unit. The law is inexorable, but the masses do not understand it. And it is amazing how many men and women, otherwise educated and trained to careful thinking, appear not to grasp the truth contained in the statement of that law."

### THE LARGE CITY'S STREET TANGLE.

Going to the window of the room he pointed down towards the street, far below, at the foot of a "skyscraper."

"We can," he continued, "install and operate a telephone system in a city of moderate size for, roughly speaking, from one-fourth to one-fifth of what would be a reasonable charge in a city which has grown beyond its normal size. Every operation costs more. Watch those workmen down there. See the maze of pipes, sewers, conduits, and other facility works, and remember that, when we work there, we must get around or through or under that intricate network. For there is the best picture of the involvement of a huge city in the meshes of economic law."

"You see"—as he turned away—"we deliver to each telephone patron here in New York City hundreds of thousands of telephone connections, whereas in a small city we would deliver only a few thousands of connections. That is one reason why we must have more per telephone here than in a city of moderate size."

While New York was increasing in population about 30 per cent., the cost of installing transit facilities increased about 400 per cent.; for, whereas the system installed twenty years ago cost £15,000,000, the system just now opened cost five times as much, or £75,000,000. About the same ratio of increase was maintained in building the latest waterworks system for New York City.

### THE COST PER RESIDENT.

The cost per resident of building the transit system twenty years ago was eighteen dollars and seventy-five cents (£3 15s.). The cost per resident of the latest transit system is sixty-three dollars (£12 12s.). The increase of population was one-third, while the increase



per resident of the new system is three and a-third, or ten times the increase of population.

These figures are pre-war, of a period when the cost of labour and materials was normal.

How, then, is society to bear the increasing costs in the extremely large city? And is there not only one answer: Diffusion of activities as well as of population? Is it socially, physically, engineeringly, and economically possible for from three to seven millions of persons to live in one aggregation and maintain anything like the normalities of life? I believe it may be at least approximated. However, such a query might well consume space for another article in *THE ARCHITECT*.

## Heating and Lighting.

THERE will be no one prepared to deny the importance artificial lighting has for architects and all others engaged in the erection of buildings. Yet it was not until comparatively recently that the subject came to be treated with the seriousness which it deserves. Previously to then, such study of it as was made was in a more or less haphazard and unco-ordinated way. Now all that is being changed. The illuminating engineer has become a power in the land. But all the while there have been individuals or isolated groups of men engaged in research work. As a result, we possess the discoveries of men like Bunsen and Baron Von Welsbach which revolutionised the industry. Eager minds have been engaged on carrying forward the banner of progress. Victories may be won, however, in the factory as well as the laboratory. One of the most enterprising firms in this line of business in the United Kingdom is the firm of William Sugg & Co., Ltd. Their name has for years been associated with all that was progressive. They remain to-day, after winning seventy-nine highest awards, as far in the van as they have ever been. Messrs. Sugg are manufacturers, engineers and contractors, and are in a specially favourable position to see all sides of any problem presented to them.

One branch of their business deals with gas cookers. Here, by studying the shortcomings of others, the firm have produced types which have proved remarkably successful. Sugg's gas cookers are designed and manufactured with the benefit of long experience and to the end of giving the greatest possible service on the lowest possible gas consumption; to afford the utmost ease in use and to permit of the stove itself and everything about it being kept perfectly clean with the minimum exertion.

Messrs. William Sugg & Co. can draw upon eighty years' experience in the manufacture and use of gas lighting appliances, and they produce lamps and burners of almost every dependable type. For important public lighting they recommend their lamps on the "Littleton" principle (which consists of multiple small mantles on a single superheated burner), as giving high-pressure candle-power at low-pressure upkeep cost. Their lamps are easily adapted to automatic lighting devices, or may be operated by distant control devices or flashing spirit-lanterns. The "Littleton" principle is also suitable for both ordinary outdoor and indoor lighting, for which these manufacturers have a very wide selection of lamp types designed for practically any conceivable purpose. A recent development is their range of fittings for semi-indirect gas lighting, which are of special interest to our readers. In them science and art are most happily combined. It is not necessary to speak of the peculiar merits of semi-indirect lighting, for they must be familiar to all.

Messrs. William Sugg & Co., Ltd., have recently prepared new illustrated lists for the various branches of their business, which may be obtained from their head office, Ranelagh Works, Chapter Street, Westminster, S.W., or the Vincent Works, Regency Street, S.W.

THE will of Mr. M. Nisbet Inman, of 7 Bedford Row, V.C. 1, of Messrs. Inman & Sons, architects, has been proved to be £19,282.

## Industrial Standardisation of Engineering and Allied Products.

A CONFERENCE, unofficial in character, of the secretaries of the various standardising organisations at present in existence has recently been held in London. The Conference was convened by the secretary, with the cordial permission of the Main Committee of the British Engineering Standards Association, and was opened by the Chairman of the Association, Sir Archibald Denny, Bart.

The following secretaries were present:—Dr. P. G. Agnew (U.S.A.), Mr. A. Eriksen (Norway), Mr. E. Hijmans (Holland), Mr. J. R. Durley (Canada), M. G. Gerard (Belgium), M. Zollinger (Switzerland), and Mr. C. le Maistre, C.B.E. (Great Britain).

The object of the Conference was the exchange of ideas looking towards the establishment of closer relationship, and from this point of view it was eminently successful. Each secretary gave a brief report of the general organisation of the work in his own country, the methods adopted in arriving at the Standards, as well as the principles followed to ensure their adoption when issued. It is interesting to note that in most countries it is becoming more and more recognised that industrial Standardisation, whether of quality or dimensions, to be really useful must be arrived at through a process of unifying the needs of industry rather than by attempting to set up an ideal. It also appears that, whereas engineers are everywhere giving freely of their time and experience to this important work, its value to commerce generally is far too little appreciated and is, therefore, not being supported financially to the extent it should be.

Some enthusiasts are rather apt to think that the time has arrived to attempt to create an international organisation for standardising all engineering products, but the Conference, it is understood, took a much more modest view, and seeing the almost insuperable difficulties in the way, preferred to see international standardisation develop along national lines and sectionally similar to those adopted, for instance, by the electrical industry in the case of the now well-established International Electro-technical Commission.

The Conference having no executive functions whatever, each secretary will in due course submit to his respective organisation the suggestions of the Conference on the various points discussed.

The secretaries were entertained by the British Engineering Standards Association during their four days' Conference.

The human factor enters so largely into all questions of standardisation that for the secretaries of these important bodies to meet and become personally acquainted and thus have an opportunity of comparing notes in this informal way is bound to be of no small advantage in the future, and materially assist in guiding international intercourse on this complex question along right lines.

## Forthcoming Events.

*Saturday, May 21.*—Architectural Association.—Visit to Denham Place, Denham, Bucks. Members to meet at Denham Station (G.W. Railway and G.C. Railway) at 2.30 P.M.

*Monday, May 23.*—Royal Institute of British Architects.—Meeting at 9 Conduit Street, W. Paper by Mr. Robert Atkinson entitled "Cinema Design." 8 P.M.

*Thursday, May 26.*—Royal Institute of British Architects.—Public Lecture at 9 Conduit Street, W., by Sir Charles Nicholson, Bart., M.A., entitled "Post-war Churches." 5 P.M.

—Incorporated Church Building Society.—Annual General Court at 7 Dean's Yard, S.W. 1. 3 P.M.

—Architectural Association.—Conversazione and Dance to be held at 34-35 Bedford Square, W.C. 8 P.M.

*Friday, May 27.*—Town Planning Institute.—Meeting at 92 Victoria Street, Westminster, S.W. Discussion to be continued by Mr. George L. Pepler, F.S.I., entitled "Some Town-planning Problems." 6 P.M.



## The Protection of Iron with Paint Against Atmospheric Corrosion.\*

By J. NEWTON FRIEND, D.Sc., Ph.D., F.I.C.,  
Carnegie Gold Medallist (Birmingham).

THE results described in this memoir are a continuation of those already detailed by the author in 1918.† The general method of experimentation was the same, and all the precautions which previous research had shown to be necessary in order to obtain consistent results were rigidly adopted. The method consisted in exposing, for a period of five years, series of plates of steel coated with various paint mixtures; and determining their loss in weight due to corrosion.

The plates measured 2 ft. by 1 ft. in area and 0.03 in. in thickness (No. 22, B.W.G.), and were made of open-hearth steel, cold-rolled and charcoal annealed. They were cleaned by immersion in dilute sulphuric acid in leaden baths, then washed and placed for a few minutes in dilute caustic soda solution to remove any traces of acid. After again washing and drying, the plates were finally polished with emery-paper. After having been weighed and painted, the plates were suspended on a specially constructed wooden fence erected on a low bank running almost due north and south in the valley of the Severn near Worcester, and the author gladly takes this opportunity of thanking the Worcester City Sewage and Waterworks Committee for allowing him free use of this ground.

In order that the results might be as reliable as possible, and relatively independent of the effects of minor variations in chemical and physical properties from which iron plates are so liable to suffer, five plates were used in each test. Unfortunately, during the absence of the author on military service, some of the plates were, during gales, blown down from the fence and damaged. This accounts for the gaps in the table of results at the end of this memoir.

After five years of exposure to the atmosphere the plates were removed, soaked in caustic soda solution to remove the paint, washed, dried, and any adherent rust removed by gentle scraping and polishing with emery-paper. The cleaned plates were now weighed, and their loss in weight taken as a measure of their corrosion.

The oils used in this research were obtained from Messrs. Mander Brothers, of Wolverhampton, several of them being specially prepared for the author by Dr. Morrell. They were as follow:—

No. 1. Pure Calcutta raw linseed oil.

No. 7 Oil No. 1, heated for sixteen hours to a maximum temperature of 305°C. No drier.

No. 8. Oil No. 1, heated for four hours with 0.5 per cent. Cyprus umber up to 305°C.

No. 9. Oil No. 1, heated for two hours with 1.5 per cent. manganese hydroxide to 150°C.

No. 10. Oil No. 1, heated for four hours with 1 per cent. litharge to 205°C.

### INFLUENCE OF OIL TREATMENT.

In the author's previous paper attention was drawn to the superiority of polymerised linseed or litho oils over the raw oil for the protection of iron against atmospheric corrosion. This is attributable in part to their diminished permeability towards water, but mainly to their greater stability; polymerisation resulting in the saturation of their double bonds, thus rendering them less liable to oxidation and disintegration upon exposure.

On the other hand, an ordinary boiled oil is partially oxidised in the process, and, particularly if a drier be present, a marked increase in the rate of setting is observed when the oil is spread as a paint film upon a suitable surface. One of the main objects of the "boiling," indeed, is to increase the rate of setting. But the same catalysts which accelerate the setting or initial oxidation also accelerate the disintegration or slow further oxidation upon prolonged exposure to air. Hence, in

contradistinction to litho oils, ordinary boiled oils will not as a rule offer as good protection to iron as the raw oil. This is clearly demonstrated by the results of Series XL. to XLIII.

### MULTIPLE COATS.

It has already been demonstrated † that not only do two coats of paint protect iron from atmospheric corrosion more efficiently than one thinner coat, but they are even slightly more efficient than one thick coat containing the same weight of paint as the two together.

It is important to remember that this applies only to atmospheric corrosion, for the author has shown ‡ that a precisely opposite effect is obtained by prolonged immersion of iron plates in water. The amount of corrosion under these conditions actually increases with the number of coats or thickness of the paint. This has been fully confirmed during recent years, and the author hopes to publish these results at an early date, together with an explanation for this anomaly.

The question now arises as to whether or not the method of mixing and applying a paint to iron may not influence the results. To determine this, series of plates were given two coats of paint, namely:—

Series XLVI. Two coats of 45 per cent. Venetian red paint.

Series XLV. One coat of 30 per cent. Venetian red paint followed by one of 60 per cent.

Series XLIV. One coat of 60 per cent. Venetian red paint followed by one of 30 per cent.

It will be observed that the total weight of both pigment and oil on each plate in the three series is the same, but the results are strikingly different.

Series XLV. yields by far the best results; the thin coat apparently clinging tenaciously to the surface of the metal, whilst the outer coat, containing a high pigment and low oil percentage, protects the inner by reason of its greater resistance to permeability by moisture and to mechanical erosion.

TABLE OF RESULTS.—All Weighings are expressed in grammes. Period of Exposure—five years.

Series.	Composition of Paint by Weight.	Weight of Paint on each Side.	Plate No.	Loss in Weight.	Mean Loss.
XL.	60 red lead	15	236	3.35	3.63
	40 oil No. 1		237	5.95	
			238	3.05	
			239	3.50	
			240	2.30	
XLI.	60 red lead	15	241	...	4.87 omitting No. 242
	40 oil No. 7		242	(12.30)	
			243	5.25	
			244	5.82	
			245	3.55	
XLII.	60 red lead	15	246	...	6.91 omitting No. 248
	40 oil No. 9		247	7.20	
			248	(17.77)	
			249	...	
			250	6.62	
XLIII.	60 red lead	15	251	...	5.45
	40 oil No. 10		252	3.80	
			253	6.58	
			254	7.10	
			255	4.30	
XLIV.	First coat: 60 Venetian red	12	256	...	2.66
	40 oil No. 8		257	2.25	
	Second coat: 30 Venetian red	12	258	2.48	
	70 oil No. 8		259	...	
			260	3.25	
XLV.	First coat: 30 Venetian red	12	261	1.35	1.3
	70 oil No. 8		262	1.80	
	Second coat: 60 Venetian red	12	263	...	
	40 oil No. 8		264	...	
			265	0.75	
XLVI.	Two coats: 45 Venetian red	12 each	266	...	2.13
	55 oil No. 8		267	...	
			268	2.28	
			269	1.45	
			270	2.65	

\* A report presented at the annual meeting of the Iron and Steel Institute held at the Institution of Civil Engineers, Great George Street, Westminster, on May 5 and 6.

† Iron and Steel Institute: Carnegie Scholarship Memoirs, 1918.  
‡ *Ibid.*, 1913. Vol. V.



CONCRETE BLOCKS "KING" PLASTER SLABS

WALLS PARTITIONS ROOFS

FIBROUS PLASTER CEILING SLABS

Ferro-Concrete and Glass Constructions

"FERRO GLASS" PAVEMENT LIGHTS

"KING" CONCRETE GLAZING BARS

J. A. KING & Co. 181, QUEEN VICTORIA ST., LONDON, E.C., and BRITANNIA BUILDINGS, LEEDS. Tel: City 2213 and Cent. 773, and Leeds 22712.

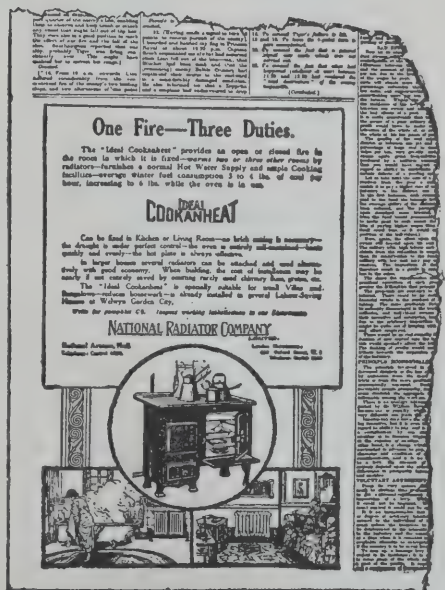
Creating Business.

To create business for our Clients and ourselves, we have initiated an extensive Advertising Campaign in the leading national papers for our latest product, the



As an additional encouragement to business, our prices for the "Ideal Cookanheat" are being reduced and further reductions made in the prices of Ideal Radiators and Ideal Boilers.

Trade firms desirous of sharing this prospective business are invited to write for our artistic coloured showcard (post free) illustrating the uses of the "Ideal Cookanheat"—its exhibition in Showrooms and Windows will form a strong connecting link and assist in stimulating local interest, especially if a reference is introduced in local advertisements. Electros will be supplied gratis on request.



NATIONAL RADIATOR COMPANY LIMITED.

Offices, Showrooms & Works : HULL, Yorks. Telephone: Central 4220. Telegrams: "Radiators, Hull." London Showrooms : 439 & 441 Oxford Street, W.1. Telephone: Mayfair 2153. Telegrams: "Liableness, London." Agents in Great Britain carrying stocks of "Ideal" Radiators and "Ideal" Boilers: Baxendale & Co. Ltd., Miller Street Works, Manchester. William Macleod & Co., 60-64 Robertson Street, Glasgow



## Government Scheme for the Employment of ex-Service Men in Building.

WE give below details of the scheme for the employment of ex-Service men to be trained in the Building Industry, which has been adopted at the request of His Majesty's Government by the National Federation of Building Trades Employers.

### (1) OBJECT AND SCOPE OF SCHEME.

The responsibility of the Government in the Scheme is confined to ex-Service men.

In England and Wales the National Federation of Building Trades Employers have accepted general responsibility to the Government for bringing about the absorption into the industry of the desired numbers of ex-Service men and for their adequate training.

In the application of the scheme to Scotland and Scottish National Building Trades Federation (Employers), the Scottish Building Contractors' Association and other employers' organisations participating, have accepted a similar responsibility, and will arrange for the proper machinery to be set up in accordance with the scheme laid down in this memorandum.

The Scheme is intended to apply mainly to young ex-Service men, say under 30 years of age, who have been for some time out of employment and have no regular occupation to which they can return when the present industrial depression is over. In addition, it is to apply to any ex-Service man now employed in the Industry as a builder's labourer.

It is designed to provide training in the crafts of the Industry which require augmentation. For the time being the deficiency is confined mainly to bricklayers, plasterers, slaters and tilers. The total number of men to be admitted under the Scheme is 50,000.

### (2) SELECTION OF CANDIDATES.

The question whether any particular man is eligible under the Scheme will be determined by the Ministry of Labour acting through the local Employment Exchange.

If it is found that the Unions do not co-operate in the formation of a joint committee, the respective employers' organisations will arrange for their local associations.

... to appoint Employers' Committees in each district (hereinafter referred to as the District Committee), which will be responsible for the selection of men for training under the Scheme.

The District Committee will deal with applications for ex-Service men by individual employers, will decide in which branch of the Trade a candidate can be most suitably trained, and will allocate the accepted candidates among all employers of building trade labour in the district.

Employment Exchanges will forward, on request by the District Committee, particulars of unemployed ex-Service applicants eligible under the Scheme for selection by the District Committee.

Candidates selected by the District Committee as suitable including ex-Service men now engaged as builders' labourers, provided that they are eligible, will be registered under the scheme at the Employment Exchange of the district.

To facilitate registration of selected candidates, all candidates will render to the Exchange an application form (which will be a standard form obtainable at the Exchange) giving particulars of service in H.M. Forces and civilian experience. This form will require certification by the Exchange as to eligibility, and completion by the Secretary of the District Committee as to the approval and allocation of the candidate.

### (3) AGREEMENT OF SERVICE.

An agreement of service valid for two years will be entered into between the employer and the accepted candidate. The agreement will be subject to a break at the expiration of a probationary period of three months and to

termination thereafter on the ground that either party is not observing its provisions.

In addition, to meet the needs of the employer who may not be able to provide continuous work for two years, provision will be made in the agreement for its assignment from one employer to another, with the consent of the workman in writing, which consent shall not be unreasonably withheld. The responsibility for assigning will rest upon the employer who is a party to the agreement, but the District Committee will exercise a general supervision in this matter.

The agreement shall provide that at any time during its currency the workman shall have the right to apply to his employer for a certificate of proficiency entitling him on the ground of his qualifications to a higher percentage of the standard district rate of wages than that laid down in Section (4), "*Rates of Pay*" hereunder.

Subject to the general responsibility of the aforesaid employers' organisations, the District Committees will supervise generally the execution of the agreements of service and will use their best endeavours to settle complaints by either party of non-compliance with the provisions of the agreement.

All such agreements and assignments thereof will require the usual stamp.

The agreement will be made a standard form and copies will be obtainable at the Employment Exchanges.

The agreement on execution and any subsequent assignment and any Proficiency Certificate on issue will be registered at the Employment Exchange and a copy will be furnished by the employer to the Exchange for record.

The employer will notify the Exchange of the date when the workman commences employment under the agreement of service and any subsequent assignment.

### (4) RATES OF PAY.

Ex-Service men accepted under the Scheme will be paid by the employers at the following rates:—

- (a) First six months, 50 per cent. of the standard district rate for skilled men, plus 10s. per week.
- (b) Next six months, 65 per cent. of the standard district rate for skilled men, plus 5s. per week.
- (c) Next six months, 80 per cent. of the standard district rate for skilled men.
- (d) Next six months, 90 per cent. of the standard district rate for skilled men, and thereafter 100 per cent.

Towards the payments made by the employer, the Government will contribute in respect of each man accepted under the scheme:—

- (a) For the first twenty-six weeks, 10s. per week.
- (b) For the second twenty-six weeks, 5s. per week.

provided that

- (1) the workman attends regularly for duty as required.
- (2) the State contribution will be paid for a full week even though the employer by whom the workman is employed may in fact be working short time, but will not be paid for any week during which a workman does not work at all.
- (3) if during the first 12 months the workman receives from his employer a rate of more than 65 per cent. of the standard district rate the State contribution shall cease from the date of receipt of the increased rate.

### (5) CLAIMS FOR STATE CONTRIBUTION.

The State contribution will begin from the date of the commencement of employment under the agreement of service.

The contribution will be paid by way of refund to the employer on claim forms rendered quarterly or monthly at the option of the employer to the Finance Department of the Ministry of Labour.

The claim form will be made a standard form and copies will be obtainable at the Exchanges. The form will show signed receipts by the workman for each week's payment and will be certified by the employer as correct.



# REDPATH BROWN & CO., LTD. CONSTRUCTIONAL ENGINEERS



## WORKS AND STOCKYARDS

LONDON.  
Riverside Works,  
East Greenwich SE.

MANCHESTER.  
Trafford Park.

EDINBURGH.  
St Andrew Steel Works.

GLASGOW.  
Pinkston.  
Office 19, Waterloo St.

BIRMINGHAM  
Office, 47, Temple Row.

NEWCASTLE-ON-TYNE.  
Milburn House

London City Office:  
3, LAURENCE POUNTNEY HILL.  
E.C.4.



Proficiency certificates issued by employers to workmen entitling them to receive a proportion greater than 65 per cent. of the standard district rate for skilled men, exclusive of the amount of the State contribution, within the first 12 months of his training, will be signed by both parties, and forwarded by the employer to the Exchange for registration. The form will be a standard form and copies will be obtainable at the Exchange.

It will be within the discretion of the Minister to withhold the State contribution in any case in which the conditions of the Scheme are in his opinion not being complied with.

The Minister reserves the right to call upon any employer to produce documentary evidence in support of his claim to the State contribution.

#### (6) ADMINISTRATION AND RECORDS.

The Employment Exchanges will provide local administrative machinery for the supply of men, and registration of agreements, and subject to the general responsibility of the Employers' organisations the District Committees will in conjunction with the Government exercise a supervision over the execution of the agreements of service entered into between employers and workmen in their respective areas.

The Employers' organisations will arrange for regular records to be kept of the progress of the Scheme, including returns of the number of men taken on in each district, and will forward reports from time to time to the Minister.

### General.

PROFESSOR S. D. ADSHEAD, Vice-President R.I.B.A., has been appointed by the President to give evidence on behalf of the R.I.B.A. before the Government Committee on the High Cost of Building Working-class Dwellings.

THE Stamford Town Council has decided to recommend to the Housing Commissioner the acceptance of a tender for £51,154 7s. for sixty-six dwellings on the New Cross Road site received from Mr. Jno. Morgan, of Aberystwyth.

THE Birkenhead Town Council, at their meeting on the 5th inst., accepted the tender of Messrs. R. Costain & Sons, Liverpool, to erect 184 houses on the Hoylake Road and Sumner Street estates for the sum of £183,447.

THE Durham City Council have decided to obtain a loan of £1,500 to pay a bill rendered by Mr. J. G. Burnell, architect of the housing schemes, on account of his fees. It was explained that the charges were fixed by the Ministry, and the Council had no option. A councillor considered it terrible to have to pay such a sum, especially when not a brick had yet been laid.

THE Institution of Civil Engineers invite applications, on or before June 11, for the post of Secretary to the Institution from corporate members, as well as from other persons. Applicants must be between the ages of thirty-three and forty-eight, and preference will be given to those who possess engineering qualifications. The salary will be £2,000 per annum.

THE Scunthorpe and Frodingham Urban District Council have affixed their seal to two draft contracts between the Council and Messrs. W. G. Tarrant, Ltd., Byfleet, Surrey, the first for the construction of roads and sewers on site No. 4 (Crosby), at a cost of £32,450 10s. 4d., the second for the construction of 225 houses, at a cost of £177,750.

THE Corporation of London discussed at considerable length recently a proposal not to proceed with St. Paul's Bridge until the Court of Common Council had further considered the question, but eventually the motion was defeated. It was, however, decided that before inviting tenders for the structure, the Committee concerned should bring the matter up again.

At the last meeting of the Stockport Town Council it was stated that the decision of Manchester not to receive and treat the sewage of the borough and to discontinue the negotiations commenced in 1913 had placed Stockport in a difficult position. A sewage scheme for Stockport would cost four or five times the £61,000 estimated for the 1912 scheme, dropped when the now discontinued negotiations were commenced.

THE Hartlepool Housing Committee has decided to adopt the principle of direct labour in the building of twenty-four additional houses on the Hart Road sites. The decision has received the approval of the Housing Commissioner. It is expected to save about £130 per house.

THE Taunton Town Council has been informed by their Housing Committee that contracts had been allocated to members of the Taunton Master Builders' Association for the erection of twenty houses on the Greenway Road site at the basic price of £940 per house. The Committee stated that they had decided that no houses of the non-parlour type should be built on this site. In the design of the houses now to be built bow windows would be introduced.

In a report which came before the Sheffield City Council on Wednesday, the Estates Committee recommended that, subject to the approval of the Ministry of Health, tenders be accepted for the erection of "Duo Slab" concrete houses on the Manor estate:—Seventy-eight parlour houses at £830 per house, £64,740; 319 non-parlour houses at £730 per house, £232,870; total, £297,610. The revised tenders for the second instalment of 251 houses on the Stubbin estate not having been approved by the Ministry of Health, the City Architect has been authorised to amend the scheme so as to include a proportion of concrete houses ("Duo Slab" and "British Lean" systems), subject to the prices and conditions of contract for similar houses on the Manor estate being approved by the Ministry.

A REMIT from the Housing Committee of Edinburgh Town Council to the New Houses Sub-Committee to reconsider the housing programme in view of the extension of the subsidy period was before the Sub-Committee last week and delayed for three months. A representation by the Director of Housing, on a remit, to prepare a programme for a further building scheme was also delayed for a similar period. Operations on the present schemes are to be expedited, and it is anticipated that by the end of three months cheaper estimates for new houses will be possible. There was laughter amongst the members of the Committee when a letter was read from the Scottish Board of Health formally approving of the acquisition of the ground for the Abercorn housing scheme. The work of construction was started there more than a year ago, and over 200 houses are nearing completion.

THE will of Mr. Edward Holmes, of Fieldhead, Grindleford, and of St. James' Street, Sheffield, architect and surveyor, has been proved by the executors—his son (Mr. E. M. Holmes), his daughter (Miss H. F. Holmes), Mr. C. B. Flockton, and Mr. John Wortley. The estate has been sworn, "so far as can be at present ascertained," at gross £41,917. Mr. Holmes gives all his shares and debentures in the Sheffield Masonic Hall Co., Ltd., to the Brethren of the Ivanhoe Lodge of Freemasons in Sheffield for the general purposes of the lodge, and the residue of his estate is left upon trust for his son and daughter. The will ends with the following paragraph: "And lastly I desire to express my reasons for not having made any immediate charitable bequests in this my will—viz.: That during my lifetime I have to the best of my judgment and power tried to help my fellow-men not only with money, but also with service, and that the best way to help them, and to promote their welfare and happiness is, in my opinion, to prevent the necessity for charities by fostering trade and industries, and so enabling men and women to develop self-reliance and independence."

THE Midland Centre Board of Conciliation for the Building Trades, which to a very large extent has been superseded by the National Wages and Conditions Council, held its final meeting in Birmingham on the 9th inst., Mr. F. G. Hodges (Burton-on-Trent), presiding. According to the report, which was adopted, the total number of disputes dealt with amounted to 102, of which 96 had been brought forward by the operatives and six by the employers. Of these, 68 were settled by the Board, whilst in 34 cases (an average of exactly one in three) no decision could be reached. There could be no question that the periodical meetings of the board and the outspoken expressions of opinion on both sides of the table had resulted in a better understanding between employers and operatives. There had been exceptional cases when feeling had run high and when the judicial capacity or conciliatory spirit of the board was not very marked; but, as a rule, the proceedings had been conducted in a dignified, friendly, and businesslike manner. The Conciliation Board scheme had undoubtedly served a useful purpose, especially whilst the rates of wages varied very materially in different parts of the country. Under present-day conditions, however, when the various area agreements had tended to level up wages, the necessity had arisen for a national body which would regulate wages all over the country. But though the main work of the Conciliation Boards had been already taken over by the Area Councils, and would in future devolve upon the National Wages and Conditions Council, it seemed probable that Conciliation Boards would be required, in a modified form, to deal with disputes of a minor character.



## CONTENTS.

Realities . . . . .	PAGE 369	Art News of To-day . . . . .	PAGE 373
Illustrations . . . . .	370	Royal Institute of British Architects . . . . .	374
Notes and Comments . . . . .	370	Correspondence . . . . .	376
Forthcoming Events . . . . .	371	"The Architect" Fifty Years Ago . . . . .	376
Competition News . . . . .	371	Thatch.—III. (Illustrated) . . . . .	377
Caerphilly Council School (Illustrated) . . . . .	372	Architectural Heresies of a Painter . . . . .	380
London Art Galleries . . . . .	373	New Catalogues . . . . .	382

## Realities.

FOR centuries the world believed in witchcraft, now esteemed a superstition, but we sometimes fail to realise that the same instincts which made our forefathers credulous exist to-day in altered forms. We believe in imperfect formulæ, and seek a millennium which cannot be attained by the means we profess or in which we have faith. Facts too hard to be escaped frequently dispel our illusions, only to induce us to look for others equally useless. Thus few thinkers imagine that the terms of the Treaty of Versailles are final, or that the boundaries of Europe have been settled by the War; the Treaty is merely the short breathing-space of a struggle out of which some other solution may ultimately arise from the cardinal and proved fact that no nation can be the gainer in a great war.

Similarly Labour, which imagines it might gain its ends by seizing political power, will slowly and surely find that it has pursued a myth, because it has ignored the economic factor which must ultimately dominate not only industry but everything in the world under any conditions of government which can be devised, whether autocratic or democratic. The rules governing the dependence of the individual on his fellows are so complex that they will probably for long years to come baffle statesmanship, and in the feverish desire to anticipate solutions we shall frequently find we have only created further obstacles to the progress of mankind.

We have our chimeras in the profession of Architecture, and one of them is the general belief that the so-called Unification of the Profession will bring with it great benefits for the individual architect, a thesis which we do not think will bear close examination. It is doubtless a good thing that such a unification should be effected, but its chief advantage seems to be that it will show more clearly what are the real factors on which every architect's success must be based. It is a reasonable thing to remove an imaginary grievance, if it can be done without undue cost or difficulty, in order that we may realise that what is wanted is something quite different, which is often the case.

Many younger architects believe that the public could be forced to employ them in greater numbers, or to pay them bigger fees, if our organisation were more effective, but in reality it is questionable how much we should gain if the profession were a closed one and the magic word "architect" could only be used by those who had joined the Institute. Naturally, it is clear that if it were illegal for anyone to put up any building without employing a member of the Institute as architect at a fixed fee, architects would obtain an increased amount of work, but only the very young or sanguine can imagine that any State would consent to sanction such an invasion of the liberty of the subject. Stringent regulation of this kind could only come about if the public were convinced that its absence was dangerous to the community, which it would be impossible to prove.

Each of us should rather consider that it lies with him to prove by facts that our clients obtain advantages in convenience, in economy, or in safety in seeking our advice. If the individual can convey this impression to all with whom he is brought into contact the amount of his work will automatically increase, and he will secure a greater power and better assured position than can be his through the extrinsic help of outside regulation. The architect, like a doctor or solicitor, should regard every client not as a man who is coming to him once only, but as a man who has come to him for the first of several times. However well a professional man has done his work, he has failed if he parts with his client in any uncertainty as to whether he would come to him again. If he leaves him dissatisfied, he has but earned a fee; if he has pleased and satisfied him, he has formed a link in the all-important chain of professional connection. In questions relating to charging, it is sometimes good policy to put matters as a solicitor often does when he tells his client that his scale-fees amount to a certain sum, and asks whether such an amount satisfies him, for we believe many architects have lost good clients by being too assertive of their rights in individual cases. Those men who make insufficient incomes can rarely better them to any great extent by being very tenacious of their rights; what they chiefly need is not the last farthing from individual clients, but a greater amount of work and more clients, and the way they conduct their affairs often shuts the door, the all-important element in the widening of connection. Charges for travelling and out-of-pocket expenses are very frequently a bone of contention, and most men are wise to understate, rather than overstate, such items. The architect should not imagine that when he has satisfied a client—who may not be critical—he has necessarily done his work, for if his planning or design is open to reasonable criticism his client may sooner or later be disillusioned. Whatever he does is always open to such criticism. It is most important, not only for his comfort but his success, that he should convince contractors who work for him of his fairness and power of grasping practical problems, for the difficulties and dangers of building are greatly enhanced unless architect and builder can work smoothly together like different parts of the same machine.

We have mentioned a few points which are obvious, but, while they are obvious, we sometimes forget that if, as a profession, we always kept them in mind and acted up to them, we should be little in need of registration or legislation of any kind. It will also be clear that registration touches none of the issues we have raised, and that if we obtained it we might have as much to complain of as we have now.

A Labour Union can stand out for wages and conditions which no employer would pay, and Labour would be no better off. We might also obtain a



measure of registration without finding ourselves any better for it, for it is in every case the conditions which the ability, tact, and conduct of the individual architect create for him which make for his success or failure, and it is the prevalence or want of such qualities among architects which determine their standing with the public. We are not arguing against registration, an effective measure of which we should like to see granted, but are simply emphasising points which, in our mind, are far greater and more important realities than any measure of registration can be, and which must ultimately determine the success and standing of a profession.

We have to remember that, in the case of the medical profession, though a man cannot call himself a doctor if he has no qualifications, any quack can give others advice. The public as a rule does not go

to the quack, because it has greater faith in a doctor—a faith which is the result of general experience. It does not do to assume, because after a certain date it might become impossible for any man to call himself “architect” unless he had passed the tests of the Institute, that many of the public would not seek the aid of the building quack, or “structural specialist,” as he might call himself. The question would be determined not by the possession or absence of the R.I.B.A.’s qualifications, but by the general estimation in which architects were held; while it must be remembered that people would more willingly try experiments in bricks and mortar than those on the more complex structure of the human body. We should not, in a word, have as an ally Fear, which, both in matters of Medicine and Law, is a very powerful inducement to the average man.

## Illustrations.

DECORATION OF THE SALOON, CHERKELEY, LEATHERHEAD.

ROBERT ATKINSON, F.R.I.B.A., Architect. Royal Academy Exhibition, 1921.

ILLUSTRATIONS OF THATCHED BUILDINGS. By CHARLES G. HARPER. (See Articles, pp 265, 346 and 377.)

BOYS' AND GIRLS' SCHOOL, CAERPHILLY. D. PUGH JONES, F.S.A., F.S.I., County Architect, Cardiff. (See Article, p. 372.)

## Notes and Comments.

### Mr. Roger Fry.

MR. ROGER FRY greatly delighted his audience at the R.I.B.A. by his paper on the “Architectural Heresies of a Painter,” but, while he said many good and amusing things, it is impossible to treat his utterances seriously. They are what many of his pictures are—the effort of an eccentric genius to amuse himself by the exhibition of his mental processes in public. We doubt whether if he were possessed of a dual personality he would buy his own pictures, but we are absolutely certain he would not take his own advice. We question whether he has any grounds for saying, as he is reported to have said in an interview, that the good taste of patrons in the era of the Renaissance was just as bad as that of official bodies of to-day. Such a statement is patently absurd in view of a mass of evidence recorded by history. He puts down some of the difficulties of the architect in producing good work to the fact that he is working for others at their expense: but if he paused to think he would come to the conclusion that nearly everyone in the world works for someone else at their expense, whether a sale of the work done is effected before or after the work is done. As a matter of fact this has probably been a safeguard rather than a drawback to the architect, for we shudder when we think what might have been done had the average architect only to please himself.

### The Federation of British Industries.

THE Industrial Art Committee of the Federation of British Industries has been considering methods in which Art might be brought into closer touch with Industry, and has invited the co-operation of Professor Rothenstein, who makes the following suggestions:—

1. Professor Rothenstein suggested that some arrangements should be made for taking students from the Royal College into industrial works and drawing offices upon a system of improvership for a period during which the student would receive a small salary by way of maintenance. During this period he would not be regarded as being on the staff of the firm, but rather as undergoing a period of training. He would not be occupied solely in designing, but would be studying the technical processes and commercial requirements of the business also, with the understanding that he would be given permanent employment as a designer if he showed the necessary capacity.

2. Several members of the Committee suggested that it would be of great value to manufacturers if arrangements could be made for their designers to take short Refresher Courses at the Royal College.

Professor Rothenstein made certain suggestions to the Committee as to the lines on which such a course should be arranged. These will be dealt with later on in our report.

3. A suggestion was received from Professor Rothenstein that a lectureship for industrial design as applied to manufacturers should be founded at the College, this lectureship to be supplemented by the appointment of a demonstrator, who should also be an expert in the industrial application of design.

With regard to the first the Committee feel that manufacturers would be unlikely to be willing to give students who might ultimately go elsewhere the run of their works, but they have agreed in recommending the second and third suggestions and, if the Executive Committee approves, it is proposed to take active steps to put the scheme into operation.

We are convinced that Professor Rothenstein has made practical proposals for meeting a great difficulty, the adoption of which should supply a great want, and give increased vitality both to the arts of design and the commercial success which is based upon them.

### Mr. Aldridge again.

MR. ALDRIDGE, in a Press Association interview expressed sorrow at the recent statements of Sir Alfred Mond with regard to the housing requirements of the country, and predicted that the people of certain areas would not consent to have the housing programmes of those areas cut down. We may remind Mr. Aldridge that there is no reason why housing should be cut down, but every reason why those who want it should pay for it themselves. Housing is a good thing, but housing large sections of the community at the cost of a comparatively small number of taxpayers is a bad thing. Mr. Aldridge also said that £12,000,000 to £18,000,000 a year spent on housing was a mere bagatelle compared with £600,000,000 spent on alcoholic refreshment, which he stated was a luxury. Statistics would probably prove that the bulk of this latter sum was spent by the working classes, and, without entering on the controversy as to whether alcohol is or is not a luxury, we would point out that it is within the power of the working classes to spend their money on housing rather than on alcohol. But Mr. Aldridge belongs to the school of dogmatic radicals who would settle everyone's business for them, and is not deterred by the fact that the legislation he is so much in favour of is the chief factor which has produced the shortage he deplors.



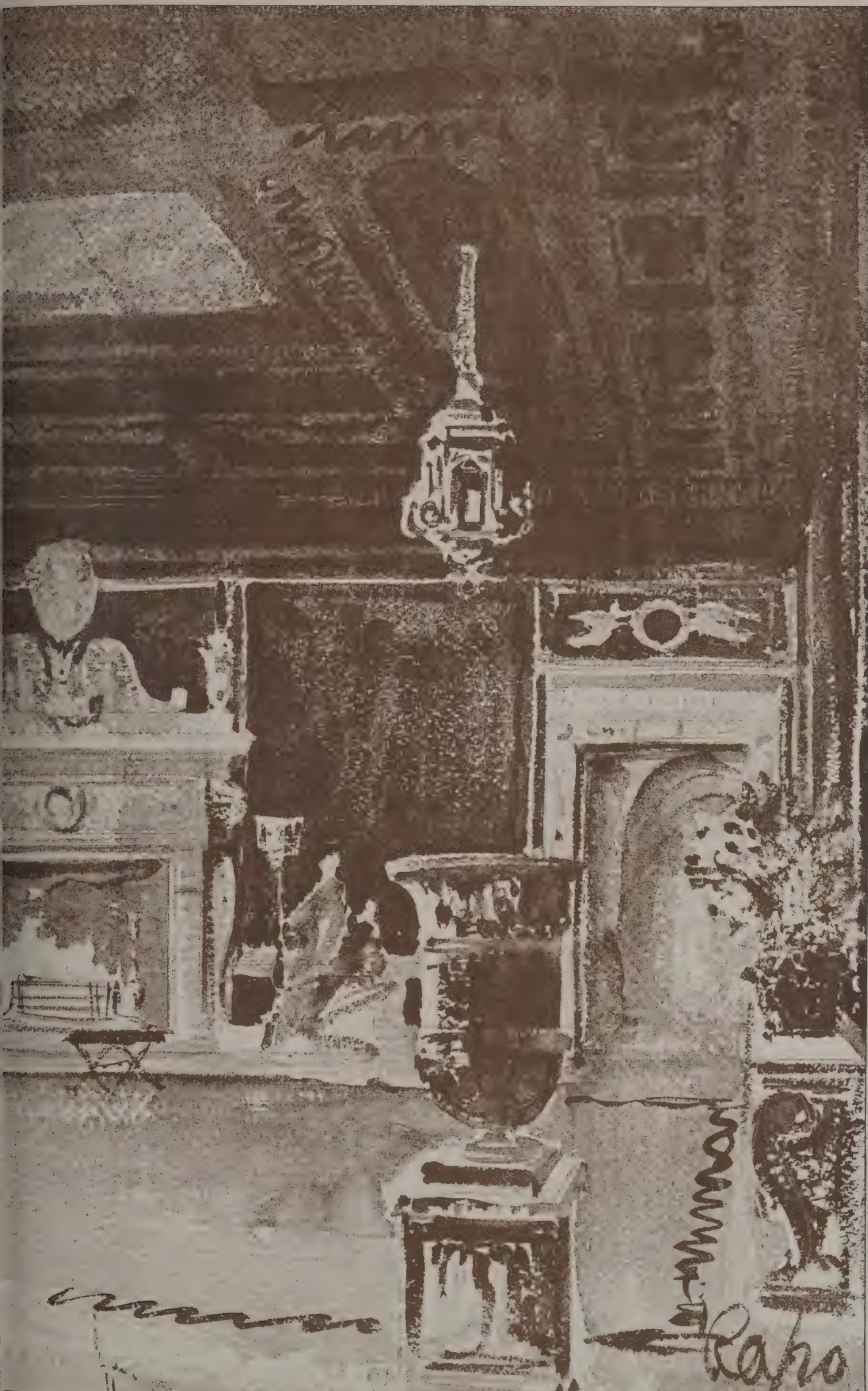
THE UNIVERSITY OF ILLINOIS  
OF THE  
LIBRARY







Y 27th, 1921.



SCREENLESS PHOTO PROCESS, SPRAGUE-HAYCOCK (PRINTERS) LTD. 69 & 70, DEAN STREET, LONDON, W.1.

LEY, LEATHERHEAD.

ICHITECT.

THE UNIVERSITY OF THE  
SOUTH ALABAMA



UNIVERSITY OF ILLINOIS  
OF THE  
AT URBANA



THE "WHITE HART" INN, STURMINSTER NEWTON.



SHILLINGSTONE.





THE HANGMAN'S COTTAGE, DORCHESTER.



COOMBE BISSETT.

STATE LIBRARY  
OF THE  
UNIVERSITY OF ILLINOIS



THE LIBRARY  
OF THE  
UNIVERSITY OF ILLINOIS







THE LIBRARY  
OF THE  
UNIVERSITY OF ILLINOIS



### The Right of Artists.

THE Belgian Chamber has just passed a law which will be welcomed by all artists. It provides that they, or their heirs, shall receive a percentage of the proceeds when their works are sold by public auction. The percentage, it is true, is not very high—it ranges from two per cent. in the case of pictures that are sold for £200 or less to six per cent. where the picture fetches over £1,000—but it is sufficient to give an artist a definite pecuniary interest in the public's recognition of his work and in his posthumous reputation. As a rule, a painter's talent develops slowly and his vogue still more slowly. Many of the world's greatest artists have had a hard struggle to keep body and soul together, even when they have reached the height of their powers. Pictures that are worth thousands of pounds to-day have been sold to pay the rent of a garret.

This measure, which is based on very reasonable lines, appears to us a clever method of meeting a great hardship, as it effects its purpose without any real interference with the rights of the owner of the picture in question. In this it is far fairer than the Italian law, which prohibits the exportation of works of art, and so in many cases absolutely penalises those who have need of the proceeds which the sale of a picture would represent.

### Smokeless London.

EVERYONE is congratulating themselves on the new beauties of London revealed by the enforced economy in the use of coal, and we are not surprised that architects and others should be agitating for the preservation of the *status quo* by means of legislation or action by the public authorities. Any action taken would have to impose a limit of some years during which present appliances could be used, so that each householder could form a sinking fund to cover the cost of the necessary changes. We should not forget how much has been done already, for looking back twenty or thirty years we can remember winters in which black smoke-saturated fogs used to be frequent visitors, whereas now they have become rare visitants. In all probability the cost of coal and the rapid improvement of grates and stoves would improve the atmospheric conditions of London without legislation, but if the process can be hastened it will be in the interests of all, unless individual householders are unduly penalised by the zeal of reformers.

### The Studio.

THE April "Studio" is well worth the attention of the student for the contrasts of ancient and modern work, presented by the water colours of the Old Masters on the one hand, exhibited by Messrs. Agnew, and the admirable modernism of the Senefelder Club on the other. The May number is almost more interesting, with its article on the paintings of Mr. William Strang, its reproductions of etchings by Mr. James McBey, and the supremely delightful pottery of Mr. Charles Vyse. "The Balloon Woman," "The Lavender Seller," "The Tulip Girl," are far better works of art than most of the Bow and Chelsea figures, for which connoisseurs will pay any price, and as records of our time they have at once the accuracy of Hogarth and the beauty of loving observation of the living things of to-day. The marionettes of a contemporary Viennese theatre are in their way almost equally interesting; but it is to Mr. Vyse's work that, more than to anything we have seen of late years in the "Studio," we turn and return with ever fresh delight.

MR. THOMAS TAYLOR WAINWRIGHT, of The Old Hall, Sandfield Park, West Derby, and of Messrs. Thomas Wainwright and Sons, Union Court, Liverpool, architects and surveyors, a well-known valuer of property, died on January 23, leaving estate of the value of £284,561, of which £276,768 is net personalty. The testator gives, amongst a large number of bequests, £1,500 to the Liverpool Cathedral Fund, £500 to the Surveyors' Institution, London, and £500 to Alexander Turnbull if still in his employ.

### Forthcoming Events.

*Friday, May 27.*—Town Planning Institute.—Meeting at 92 Victoria Street, Westminster, S.W. Discussion to be continued by Mr. George L. Pepler, F.S.I., entitled "Some Town-planning Problems." 6 P.M.

*Monday, May 30.*—Architectural Association.—Meeting at 34 Bedford Square, W.C. Paper to be read by Mr. G. K. Chesterton, entitled "A Layman's View of Architects and Architecture." 7.30 P.M.

—Surveyors' Institution.—Annual General Meeting at Great George Street, S.W.

*Tuesday, May 31.*—Illuminating Engineering Society.—Meeting at the Royal Society of Arts, John Street, Adelphi. Discussion to be opened by Mr. J. S. Dow on "The Use of Artificial Light as an aid to various Games and Sports." 8.15 P.M.

*Wednesday, June 1.*—Royal Archæological Institute.—Meeting at the Society of Antiquaries, Burlington House, Piccadilly, W. Paper to be read by Mr. G. McN. Rushforth, M.A., F.S.A., entitled "The Glass in the East Window of Great Malvern Church and its relation to the St. William Window in York Minster." 4.30 P.M.

*Thursday, June 2.*—Royal Institute of British Architects.—Public Lecture at 9 Conduit Street, W., by Mr. Henry M. Fletcher, M.A., entitled "Building a House." 5 P.M.

### Competition News.

THE Herefordshire War Memorial Committee are prepared to receive designs for a memorial in the style of an Eleanor Cross, to be erected in the Cathedral close, or, in the alternative, of a soldier on a pedestal, to be erected in the City. The cost must not exceed £2,000. The Committee do not bind themselves to accept any design submitted. Designs, with particulars as to height, materials, &c., should be sent not later than June 14 to the Hon. Secretary, Shirehall, Hereford.

THE Wolverhampton War Memorial Committee invite designs for a memorial to be placed on a site adjoining St. Peters' Collegiate Church, Wolverhampton, for which premiums of 150 guineas, 100 guineas, and 50 guineas will be awarded to the author of designs placed first, second, and third respectively by the assessor, Mr. John W. Simpson, F.R.I.B.A. Designs must be delivered, carriage paid, on or before August 13. Applications for particulars should be addressed to the Town Clerk not later than June 6, accompanied by a deposit of two guineas.

H.R.H. PRINCESS LOUISE, Duchess of Argyll, who has been adjudicating in the Sutherland Shield Design Competition, has given her decision. The first place is awarded to Mr. T. Lindsay, Clarkston; second to Mr. George Edward, Bearsden; third to Miss Isabel S. Smith, Hillhead. The competition was open to past and present students of colleges and schools of art throughout Scotland. The Sutherland Shield is a gift by Sir William Sutherland, M.P. for Argyll, and will be the second prize in an open pipe band contest at Cowal Highland gathering on Glasgow Trades holiday.

SOUTHEAST Corporation Housing Committee recommend that the Government building subsidy should only be granted to persons building houses for their own occupation or for letting.

The British Music Society is organising a conference, the objects of which are to inquire into the public's comparative indifference to contemporary art and to consider the advantages and disadvantages of a closer union between the various arts. It will take place from June 7 to June 10 at the Æolian Hall, New Bond Street.

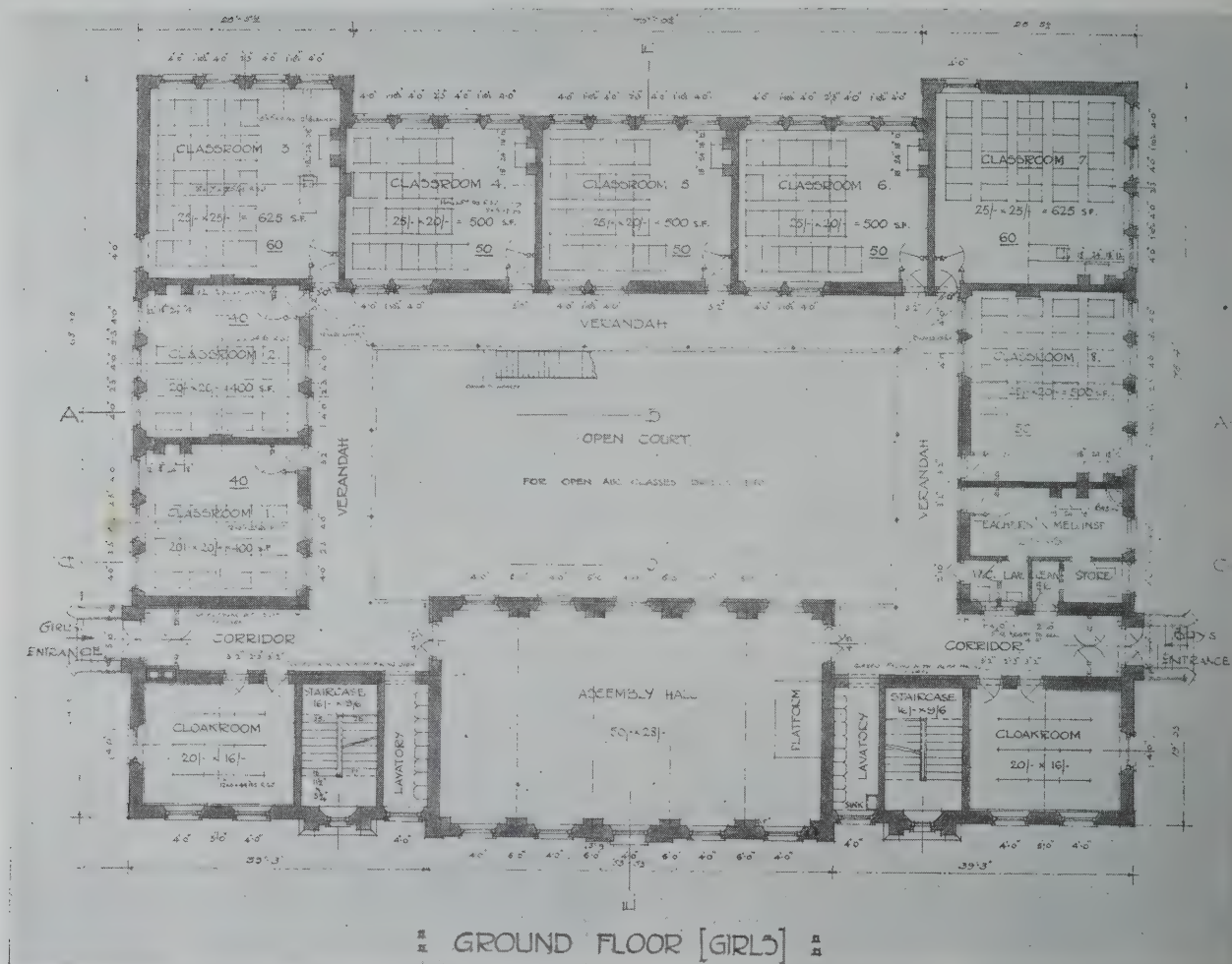
MESSRS. RONALD & RUNTZ, surveyors and valuers, of Sanctuary House, Tothill Street, Westminster, S.W., write us that they are now associated in business with Mr. Reginald M. Phillips, surveyor, valuer, land and estate agent, of 22 Conduit Street, W. 1, where all communications should be addressed. Telephone numbers Mayfair 956 and 957.

THE Royal Academy give notice of their intention to elect one Turner annuitant. Applicants for the Turner annuity, which is of the value of £50, must be artists of repute in need of aid through unavoidable failure of professional employment or other causes. Forms of application can be obtained by letter addressed to the Secretary, Royal Academy of Arts, Piccadilly, W. 1. They must be filled in and returned on or before Wednesday, June 8, 1921.



## Caerphilly Council School.

(See Inset Illustrations.)



THE school has been designed to accommodate 400 boys and 400 girls. The girls on the ground floor and the boys on the first floor, with dining-room, heating chamber, etc., in the basement. Each floor comprises eight classrooms, with assembly hall, cloak-rooms, teachers' and medical inspection rooms, etc. A feature of the plan is that all classrooms are cross lighted and ventilated, and open directly out to covered ways.

Local stone and brick is being used for main walls and partitions. Externally the walls are faced with local stone, having dressings of St. Aldhem Box Ground with Forest of Dean stone steps, &c., the roofs being covered with North Wales slates. Internal walls have a glazed brick dado plastered above. Classroom floors are of G and T boards secured to reinforced concrete floors, the corridor and cloakroom floors being finished in granolithic. The cloakroom fittings are to be of iron with wire-netting divisions. Natural ventilation is em-

ployed (cross ventilation), all windows are made to open. All rooms and corridors will be heated by low pressure hot water.

The school is pleasantly situated away from the main road, and will, with its every provision for efficiency and comfort, doubtless be much appreciated by both teachers and scholars.

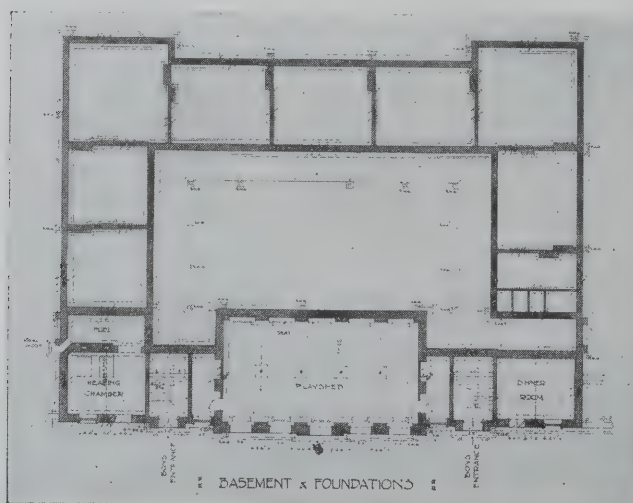
The buildings are being erected for the Glamorgan County Council Education Committee by Mr. John Makin, of Cardiff, at a cost of £44,829 15s. 11d., under the direction of Mr. D. Pugh-Jones, F.S.Arc., F.S.I., County Architect, Cardiff.

SIR BANISTER FLETCHER, a Fellow of the Surveyors' Institution and of the Royal Institute of British Architects, has removed from 29 New Bridge Street, E.C. 4, to 1 King's Bench Walk, E.C. 4.

SIR THEODORE CHAMBERS, K.B.E., and Messrs. George Corderoy, Cuthbert Lake, and Dendy Watney have been nominated to represent the Surveyors' Institution on a Committee, now being set up by the Royal Institute of British Architects, to investigate and report on the possibility of formulating a national housing policy on a contributory basis, to come into operation on the termination of the Government's present commitments.

MR. O. MAXWELL AYRTON, F.R.I.B.A., recently attended a meeting of the Huntingdon Memorial Hall Committee, and sketched on a blackboard his proposed scheme for the erection of a hall near the County Hospital at a roughly estimated cost of £8,000. The Committee afterwards instructed Mr. Ayrton to get out detailed plans.

FRESH discoveries are reported in connection with the excavations at St. Augustine's Abbey, Canterbury. At a meeting of the Kent Archaeological Society the Rev. R. V. Potts, who is in charge of the work, said there had now been revealed the four eastern bays of the nave and of the south aisle, as well as the south wall of the church. When they got to the Saxon level they would find, Mr. Potts was confident, the tombs of Ethelbert and other rulers of the period.





## London Art Galleries.

(All rights reserved.)

LAST week opened at the Leicester Galleries the exhibition of caricatures by Max Beerbohm, and at the same an interesting Memorial Exhibition of water colours by the late Francis E. James. The subject-matter of these water colours is, in almost every case, flower-drawings, for it was to this that the artist, who died in August of last year, had especially devoted himself in his Devonshire home at Torrington, where, I understand, he was long kept a prisoner and crippled by ill-health. In his excellent little preface to these paintings, Mr. Michael Sadler tells us that "such understanding of flower psychology as James acquired was not his by gift of heaven. Years of study, ruthless rejection of drawing after drawing, went to the perfecting of his art." The influence and personal friendship of that fine water-colour artist, H. B. Brabazon, also finds expression in these drawings; but as a flower-painter Francis James is as individual as Fantin Latour. Their technique is wonderfully loose and skilful, seeming to keep the freshness and natural vagaries of growth of the originals, and the backgrounds in almost every case differ and are effective, though in "Early Victorian Roses" the tree trunk makes an ugly break. Among these exquisite blooms I admired the "Amaryllis," "Clematis and Rose," "White Violas in green dish," and "Rhododendrons."

But the attraction of the Max Beerbohm Caricatures in the next room was a very strong one, and it was there that the crowd gathered when I visited the Galleries yesterday. Early that morning Mrs. Asquith had been round with her son, and had without doubt paused before the drawing of her husband, as a belated reader of Margot's Memoirs, with the bust of Dr. Johnson looking down upon him; later in the day came Lady Tree with her daughter, Sir Gilbert Parker, Mr. Gosse, and many others. To describe these brilliant drawings in detail is impossible: we need to see them, and see them more than once—and many of my readers will do this. Every one will have his or her special favourites. I myself enjoyed immensely, among the politicians, "The Cecils cross over"; "Enfin Seuls"—where Mr. Balfour is at peace to "tackle Benedetto Croce"; Mr. Lloyd George depicted as "The Rising Hope of the stern, unbending Tories"; "Count Wilhelm von Hohenzollern rehearsing" (on the chance he might be extradited) "his demeanour in the dock"; and "Politics"—two young ladies of the club lady type—"M'dyañ, doncher think Trotsky must be *rather* a darling? . . . Isn't there something *rather* touching about him? Of co'rse a Red Terror would be *rather* awful while it larsted. But orl the same, I do think, &c., &c."

Mr. Max Beerbohm, in a note of preface to the catalogue, explains that the first forty-five of these caricatures—including the admirable "Churchill-Wells Controversy," the somewhat scathing interview of Clio with Mr. Walter Long, "When Labour Rules," and "Mr. Belloc's Visit to the Vatican"—were done at the end of last year and the beginning of this; and that Numbers 45-65—including the interview between Georg Brandes and G. B. Shaw, which a friend of mine acquired yesterday, and the inimitable "Sir Claude Phillips 'going on'"—are a selection from those done in 1913 and 1914. Of course, the weakness of such an exhibition as this is that there are generally a certain number of drawings put in as a "make-weight" to fill up the number; but one feels this but little in the present case, and where Mr. Beerbohm enjoys his theme every line of the pencil tells, becomes alive and expressive. These satires are mordant, even merciless sometimes; but if the sharp edge is felt, there is behind this a psychology which is often profound.

On Thursday, May 19, the so-called "Nameless Exhibition of Paintings and Drawings by Contemporary British Artists" was opened, under the auspices of the Burlington Magazine, at the Grosvenor Galleries. We are informed that the selection and arrangement of the

paintings exhibited were entrusted to Mr. Charles Sims, R.A., Professor Tonks, and Mr. Roger Fry, who, for this purpose, divided British artists roughly into three groups, the Academics, Intermediates, and the Modernists, each choosing from the school represented what he considered the best works. We are adjured by the management of this exhibition to judge the pictures rather than the putative painters, which would, I imagine at any rate, be the attitude of any responsible critic in any case—whether the painters were known or unknown: at the same time, the temptation is a strong one to guess the artists as we go round, and one which neither public nor critics can be expected to altogether resist. I myself should be inclined to suspect a Lavery in the family group in the Large Gallery, and with more conviction a Mrs. Swynnerton in the children in the Long Gallery, an H. Morley in "The Lost Fawns" (is not this woodland being to be spelt differently from the animals?), a John Nash in "Beacon Hill, Ellesborough," certainly a Cadogan Cowper in "Mrs. J. E. Christie," possibly a McEvoy in the "Lady in White," which is in any case very cleverly painted. The same may be said of the "Nude"—a back view of a girl seated—in this room, which I cannot myself locate, nor yet in the next room the delightful nocturne of "The Monastery": though here I certainly would make the "Sevrès Dish" a Shannon, and the "Miss Iris Tree"—seated on the end of a bed, a very clever piece of perspective seen at the distance of the next room—a Guevara, all these suggestions being only amusing shots. In sum, an interesting exhibition (two figure drawings, "Himalaya" and "The Bather" in the Small Gallery must not be overlooked), but which does not seem likely to revolutionise modern British Art by its originality.

At the Twenty-One Gallery the drawings and paintings of Reginald Hallward now on view have really the character which is suggested by their titles—"Dreamy Isles of Rest," "The Solitary Pond," "The Vision Splendid"—of imaginative landscapes; and I like this artist's lithographic art in his series of "The Temptations of Christ" and his "Beauty Crucified." His stained glass, some of this cleverly set up as windows on the ground floor, shows good design and colour, notably in the kneeling angel, a decoration for St. Matthew's Church, Ealing Common, and this part of the exhibition might be of special interest to architects. At Walker's Galleries, Matilda Brownell, an artist well known in New York, has some clever paintings of still life. Mr. Butler Bayliss, who belongs to the Birmingham group of painters, is showing his paintings at the Burlington Galleries, some of the best of which deal with that naturally beautiful country, devastated by modern industry, and hence known as "The Black Country," which is cleverly handled here.

S. B.

## Art News of To-day.

AN important forthcoming sale at Messrs. Christie, Manson and Woods is that of the fine old English silver and early English spoons from the collection of Lieut.-Col. H. R. Crompton Roberts, D.S.O., to be sold on Wednesday, June 8. Some of this old silver going back to Queen Anne's reign, to that of William and Mary, and yet farther to the Commonwealth and both the Charles's is of very choice design; notably a William III. tankard with gadrooned border made by Thomas Ker of Edinburgh in 1679. Worth noting too are the James I. "tazza" engraved with strapwork, a delightful Commonwealth porringer and cover and an Elizabethan "tazza" in silver gilt, dating from 1583, and bearing the maker's mark, which is a snail. The "Seal-top" and "Slip-top" spoons, one Elizabethan, the others mostly of Stuart times, are in almost every case dated and of fine design.

The new American Ambassador, Colonel Harvey, will unveil on May 30 the bust of Washington in the crypt of St. Paul's Cathedral. Later fixtures are the dedication or presenting of the home of the Washington family at Sulgrave Manor, as public property, and the unveiling of a statue of Washington in Trafalgar Square.



## The Royal Institute of British Architects.

A GENERAL meeting of the Royal Institute was held on Monday last, the 23rd inst., Mr. George Hubbard, F.S.A., F.R.I.B.A., in the chair.

Mr. Arthur Keen, the Hon. Secretary, announced the decease of the following members: Herbert William Walker, Associate, 1897, of Colombo, Ceylon; Captain Morley Pope, Licentiate, of Montreal; William Hampden Sugden, Licentiate, of Keighley; also of the distinguished Honorary Corresponding Member, Professor Martin Nyrop, of Copenhagen, elected in 1906.

The regrets of the Institute for the loss of these members are to be recorded on the minutes of this meeting.

Mr. Robert Atkinson, F.R.I.B.A., then read a paper, of which we give an abstract, entitled

### "THE DESIGN OF THE PICTURE THEATRE."

One of the most astonishing developments of modern times has been the development of motion picture theatres, beginning as penny gaffs, then progressing through various stages to the higher level of good buildings specially erected by good architects, well equipped, a level which was considered final by the world of yesterday, which is even now as thoroughly out of date as things a hundred years old would be in any other range of development. Even opera houses of yesterday are puny and pitifully defective compared to the magnificent theatres, not gaffs, of the moving (literally) picture world of to-morrow.

The picture theatre of to-day seats 2,500 people more or less as a normal theatre, and has colossal brothers having a capacity of 5,000 and over, with a degree of dignity and value of design which very few real theatres possess. Theatre design, which has stood still for a hundred years, more or less, still perpetuates the old defects, despite the possibilities of modern construction, and the moving picture has overtaken the theatre, passed it, and incidentally applied to theatre design the impetus which conservatism and lethargy in design had stifled almost to death, at any rate in England. In Germany progress has been made, and recently in America the running had been taken up by the proper organisation of theatre design, beginning and often ending with the employment of really *first-class* architects. In England, unfortunately, the first-class architect has not been employed as often as one would wish.

The development of the picture theatre into an opera-house and concert-hall, a combination of pure stage settings and gorgeous decorations, cannot be conceived by any one who has not seen the latest thing in this way in any large town in America, and in New York repeated a dozen times over.

The picture theatre does introduce new features into theatre design, but not sufficiently radical to submerge the traditional theatre. Whilst in the ordinary theatre the seating must be concentrated to within the limits of carry of the spoken word, the picture theatre is limited only by the power of vision of the public, and, conversely to the ordinary theatre, the nearer seats are not of such great value as those further removed.

The most serious limitation is the risk of distortion from angle views on to a flat screen, and again the early traditional fan-shaped theatre meets the difficulty by placing the fewest possible seats outside a reasonable angle of vision. As already stated, the limit of depth of a picture theatre is only regulated by the vision of the audience, and it is an open question whether already in the larger theatres in America this has not been overstepped.

The planning of the picture-house revolves very largely about the projection of the picture on the screen, and which is combined with good vision or sighting for the body of the auditorium, and good exits in case of emergency, &c. Where the site is cheap and sufficiently ample a one-storey theatre is the most economical up to a seating capacity of 1,500 persons, but for expensive sites and for large capacities a double-storied theatre becomes essential; roughly, by introducing a balcony the

seating can be doubled; thus a 3,000 theatre can be made to accommodate 1,500 on the auditorium floor and 1,500 in the balcony. Three-tier theatres, the usual type for the normal theatre, are very difficult to work as picture theatres.

To plan logically the demand for the greatest possible number of seats at some little distance, say fifty or sixty feet from the screen, and yet not too far removed (120 feet), points to the fan-shaped theatre as being the most suitable; not only does it provide the maximum good seats, but it eliminates the bad, near side-seats. In section, too, the converging sight lines suggest the conical outline, a return to the Roman vallerum in principle. Again, the acoustical properties of the cone are as near perfect as possible. Where halls are shorter than this distance the rear walls should be padded as sound chambers, and if the hall is large the side walls and ceiling should be hollow, so as to increase the consonance. A dome, however flat, reflects sound waves towards a focus, and so causes an anti-climax of more or less intensity.

Sighting lines are usually so arranged that each person has a clear view of the bottom of the picture, obtained by sloping the floor or stepping the balcony, as the case may be, so that the vision line is three inches above the vision line of the seat in front. This, with the possibility of staging the seats, gives a clearance of six inches between alternate rows of seats. Where the theatre has a balcony the top of the picture should be visible from the rear seats under the balcony.

A complication of sighting lines has been introduced recently in the larger theatres, where an orchestra of anything from forty to sixty performers plays a great part in the entertainment given. These too must be within the vision of the entire house, so that the sighting lines must be lowered to give a clear view.

The seating is usually spaced 2 feet 6 inches by 1 foot 6 inches in the cheaper seats, with a gradual increase in spacing up to 3 feet by 2 feet in the best seats. No seating should be nearer the picture than the length of the screen; in other words, an angle of 60° for each extremity of the screen will give the line of the first seat, and an angle of 120° will give the angle of the extremity of seating to right and left. The seating usually radiates to a point in the rear of the picture, and the balcony follows the same curve.

Projection is really the crux of the theatre planning, or one ought more properly to say of the theatre section. It is best to lay down the projection and to build the theatre round it. The projection may be very easily worked from the back of the theatre in a building without a balcony, but becomes increasingly difficult where one or two balconies are introduced because of the angle of projection, which results in either or both a tilted screen and a distorted picture. Where the angle becomes steep (say 15° from the horizontal) it is a question whether a better method of projection may not be secured by projecting from under the balcony, or from a booth in the thickness of the balcony.

The ideal projection, of course, is the perfectly level throw, and this can be secured by these latter means, with, however, some little risk of vibration in the balcony type of projection, but in a large theatre probably negligible, and has the advantage of a short throw. The length of projection and the size of the picture are other difficulties; the length of the projection should not exceed 100 feet, but up to 150 feet has been done, and the picture will vary in size with the theatre itself, but as a rule any picture which appears to be over life-size from the back of the auditorium is too big, and *vice versa*. A 12-foot picture is usually considered life-size, and unless in a very small room should not be smaller.

	Throw.		Throw.
12 feet ...	50 feet	21 feet ...	125 feet
15 feet ...	75 feet	24 feet ...	150 feet
18 feet ...	100 feet		

The screen itself is better of solid plaster distempered white, and not of too smooth a surface (which reflects



too sharply). Rear projection has been tried, but this is not considered as good as front projection.

The auditorium of a theatre to seat 1,000 on one floor will need to be approximately 80 feet by 120 feet, and for 1,500 people 120 feet by 150 feet; with balconies, these figures can be doubled. Outside this a space in proportion for entrances, lobby, resting-room, &c., will be required.

Sites should, of course, have at least two outside walls to streets, and where the capacity is 2,000 or over isolated sites should be selected or allowance made for lateral open spaces on the ground itself.

The one-storey theatre is essentially the cheapest both to construct and to ventilate and to run. A very ingenious section adopted in America enables every inch of site to be profitably utilised as seating-room by placing the entrances under the higher part of the raked floor, and leading into the seats by tunnels after the fashion of a modified amphitheatre. Such a theatre is easily emptied in case of emergency, need not be high internally, and even provides spaces for shops on the exterior walls under the seating.

The two-storey theatre immediately introduces complications in planning which the one-storey theatre is free from—exit stairs, balcony constructions, &c.—and is even more complicated in the three-storey theatre.

Balcony design has been radically changed, and instead of the restricting columns or timid cantilever construction of the theatre of the last century balconies are now designed to carry 1,000 to 1,500 persons on anything from twelve to twenty rows of seats, as well as probably a row of "loges" surrounding the outer rim of the balcony curve. These great balconies are built only partially on the cantilever principle. A great lattice girder ten or twelve feet deep is first placed at the nearest point to the front of the balcony which will provide sufficient depth. The cross-beams are then placed running forward as cantilevers to the front edge. Through the spaces of this great lattice girder the tunnels feeding the seats have sufficient headroom to pass. This is certainly the most economical form of gallery construction, and, compared with the huge cantilevers which it replaces, is very simple.

It cannot be said that picture theatre designs have evolved any special expression either in internal decorative design or as external expression, beyond, perhaps, the more or less glorified niche as an entrance doorway.

The very finest theatre in America have harked back to a kind of Pompeian Adams motive for their internal details, very tasteful, well modelled, and well designed. Many of the smaller theatres are distinctly bad in taste.

The theatre internally needs very special powers of design; no preconceived ideas of symmetrical elevations are of any value. The design must build up from the plan and in visual effect concentrate on the proscenium opening, then gradually be reduced in value backwards. A symmetrical ceiling, circular or square, is nearly always an impossibility, and, besides, can never be seen except, perhaps, from a few seats at the rear of the balcony. Likewise the flanking walls, cut up as they are by sloping floors and balconies, provide only, as a rule, a comparatively small space near the proscenium, where any unrestricted wall space is available. These may be treated in a large way as a return and support to the proscenium, but the rest of the rear spaces are best left as a foil to the richness concentrated around the focal point, the proscenium. The funnel shape of the Goodyear Theatre at Akron, Ohio, eliminates many of the old prejudices, and approaches the logical views expressed. Externally the special character of the picture house is now recognised by its mass of posters, and artistically oscillates between the extreme of badness and a type of classical purity equally unresponsive to the use of the building.

No doubt before long, as the process of evolution progresses, the picture theatre will be a thing of beauty and equal in standing to anything designed for other purposes.

#### DISCUSSION.

Mr. A. E. Newbould, M.P., in proposing a vote of thanks, complained that Mr. Atkinson had been too modest in that he had not shown on the screen any of his own works. But if they looked round the room the audience would see what he was able to do in the way of picture theatre designing. It was very interesting to be shown what great developments and improvements had taken place in America. In 1914 the reports from that country were to the effect that we were at least equal to them. But owing to war restrictions it was impossible on this side to continue to develop, and even now it was difficult to build, consequently we have stood still. When cost of building once more approaches reason and labour difficulties are removed, he believed we would rapidly catch up America in this line. He was sure some of those theatres in course of construction here would be equal to anything yet done. If a picture theatre his company was erecting at Brighton from the designs of Mr. Atkinson was not as good as any in America, it would be Mr. Atkinson who was to blame.

Major Grierson, in seconding the vote of thanks, said that with our existing legislation architects had not a chance to prove what they could do. He did not think there would be any question when Mr. Atkinson's picture theatre at Brighton is finished that England again leads the world in this kind of work.

Mr. Walter Bayes, the painter, said he felt extremely strongly that the tremendous impetus towards picture theatres should in justice bring to the painter a certain return in relation to the architect. Painters had been robbed of the very name for their work; "pictures" no longer meant paintings but "movies." Formerly the architect was a kind of compound of engineer and sculptor; now that buildings are made of steel, and stonework has become a more abstract thing than it used to be, the architect has become a compound of the engineer and the painter. In this new field of design the art of the painter ought to find an opening. Personally he did not think the art of the painter was dead. The "movies" had, of course, cut them out completely for the moment; but the human mind was so constituted that no sooner is it satiated than it recoils to the opposite direction. People would return to think how lovely to see something that was still. It appeared to him that Mr. Atkinson was a very able designer; his interest in colour and his willingness to tolerate a painter as a collaborator marked him out as a man of great possibilities.

Mr. Max Clarke, F.R.I.B.A., said the younger portion of his life was spent entirely in designing theatres. Mr. Atkinson in his paper had not differentiated between a theatre and a picture house, and had seemed to think picture houses were theatres. With that idea he (Mr. Clarke) did not agree. In emphasising the necessity for adequate staircases Mr. Clarke mentioned that he had made the drawings for the Exeter Theatre which was later burnt to the ground with many lives lost. On visiting the site some two days after he found half of one of the exits had been blocked up by the erection of a pay-box. Sir Henry Irving had been the first to introduce Pompeian decoration to a theatre and found that it cost four or five times as much as the usual kind. In conclusion Mr. Clarke said it made no difference to the directors of a picture house what the building was like so long as it paid.

Mr. Maurice E. Webb, M.A., F.R.I.B.A., emphatically repudiated the last statement.

Mr. S. P. Derbyshire, speaking as a director of cinema companies, said that thousands of poor people were putting their money into cinemas. The great problem facing the directors was to utilise the services of architects without the expenditure of too much money.

Mr. H. W. Cubitt, A.R.I.B.A., declared architects did not exist merely to put the decoration on to a building. Their primary duty was to design a building which in plan and section suited its purpose.

A vote of thanks was then carried by acclamation.

Mr. Robert Atkinson in acknowledging the vote



remarked that an architect was useless unless he produced a building which can be worked on an economical basis. The planning and decoration were apparently looked upon as two separate things. To his mind they were not. If the decoration was too elaborate for the purpose of the directors it was bad. The brains that could not conceive a good plan could not conceive good decoration. An architect should give business men what they want. In the United States an architect is often competent to advise business men as to what they ought to do. Architects in England had a great deal to learn.

#### FUTURE EVENTS.

The honorary secretary announced that the next meeting will be held Monday, June 6, when an election of members will take place and the report of the scrutineers on the result of the elections to Council and Standing Committees will be announced. The meeting will be preceded by a special general meeting summoned by the Council under By-law 65, when the chairman will move that effect be given to the resolution of the general body passed on February 28 last that the entrance fees and annual subscriptions of honorary associates be abolished and that the by-laws be amended accordingly. Following the business meeting a demonstration arranged by the Science Standing Committee will be given of a machine for rapidly testing steel and other metals.

The first of the Annual Provincial Conferences of the Institute will be held at Liverpool on June 24 and 25. Papers will be read, visits made to places of interest, and there will be an exhibition of drawings. The programme will be published at an early date, and the Council trust that members will be present from all parts of the Kingdom.

A reception and garden party will be held by the President and Council at the Zoological Gardens on Peace Commemoration Day, Tuesday, June 28.

## Correspondence.

### Research on Building Materials.

#### The Use of Lime instead of Portland Cement, and also a Note on Advertising.

To the Editor of THE ARCHITECT.

SIR,—After reading the very practical suggestions which Mr. Alan E. Munby recently gave at the meeting of the Royal Institute of British Architects I have thought that perhaps the following notes may be of interest, for I do not think they are universally known, although people who have studied the use of lime may be aware of them.

*Lime Concrete.*—While the war was being waged a firm had to put down a concrete floor at their works, and had difficulty in obtaining sufficient Portland cement, so they used *lias* lime concrete and floated over it with Portland cement mortar. This appeared to give a very good floor, and the only objection they had to make was the slow setting of the lime concrete. But after an interval of three years the floor sounds hollow here and there, owing to the  $\frac{3}{4}$ -in. cement floating not adhering to the lime concrete! It has also cracked, and the surfaces adjacent to the cracks have been badly affected by the traffic. A warning not to place cement work over lime concrete, because lime has not sufficient cohesive strength to retain the cement rendering when subjected to traffic. Nevertheless, if cement plastering on a wall is well keyed it holds the thin coat of lime plaster which is often placed over it.

*Lime Plastering.*—Probably the most fatal objection to the universal use of lime for exterior plastering is that a sharp frost will crumble the work if it follows while the lime plastering is damp. There are few months in England when we can be sure that the nights will not be frosty. If Portland cement is used it generally sets sufficiently hard to be unaffected by the frost, excepting during the severe frosts we get in the depth of winter. Labour is so expensive nowadays that it is a serious matter to do work twice over, even if the material used is much cheaper.

Mr. Munby mentioned that a patent was taken out in 1856 for strengthening lime, a process which doubled the strength of the mortar, "but nobody to-day appeared to be conversant with this patent method of strengthening lime." I do not wonder at this invention becoming obsolete, for to whose interest is it to advocate the use of lime made

according to an expired patent? Who will go to the expense and trouble of demonstrating its goodness and utility? Certainly nobody would get any financial advantage from it.

My experience of putting new methods of construction on the market is that, no matter how good they are, architects are rightly conservative because of the serious liability which attaches to an architect's adoption of anything which may be detrimental to the structure he erects. It is essential that the uses and the non-detrimental effect of any new material should be advertised, otherwise it will remain unknown; but in the year 1856 there were not the journals which now exist for publishing advertisements.

The following incident will better illustrate my meaning. One of the exhibitors at the recent Building Trades Exhibition at Olympia asked me how to make his invention known to architects. When I told him what he would have to spend before he could benefit both himself and the architects—for his invention was beneficial to the community—he departed shaking his head. Three days after he brought his wife to me, and she told me that I had much better have advised him to give the money to her! So I suppose this most admirable invention, which is patented, will lapse for want of publicity, like several other inventions which have been introduced to my notice and which would have undoubtedly benefited the building industry.

It is an axiom among advertisers that advertisements cannot profitably sell a worthless article, but a worthy article cannot be sold except by advertisement.—Yours, &c.,

J. H. KERNER-GREENWOOD.

Kings Lynn, May 17.

## "The Architect" Fifty Years Ago.

MAY 27, 1871.

MR. T. ROGER SMITH then proceeded to deal with the "ARCHITECTURAL EXAMINATION." He described its origin in the demand for a diploma to distinguish the well-educated practitioner; and referring to the action of the Institute in examining candidates for eligibility as district surveyors, considered that this had so far familiarised the profession with the process. The system of the competitive examination for the Civil Service had also had great influence. The reader then described the history of the establishment of the examination at present carried out by the Institute—the primary proposal that it should be compulsory, which was rejected; the proposal of a certificate, also rejected; and at length the arrival at the present system. The real purpose of the undertaking had become defined thus: to show the student what to study, and to encourage and reward him by a certificate whether of proficiency or of distinction. The number of candidates had not hitherto been satisfactory; but the establishment of a preliminary examination had recently contributed to render the scheme more available. As to office-work, the lecturer pointed out the difference between the old system of seven years' apprenticeship and the new one of three years' pupillage, which must be duly admitted into the calculation of what requires to be done by other means.

In connection with the restoration of Peterborough Cathedral, it has been decided to undertake now the repair of the roof of the south aisle of the nave (which requires complete renovation), at an estimated cost of £2,100. Altogether £7,000 has been received or promised towards the £30,000 required for the complete restoration of the cathedral, and the money already in hand will pay for the work already in progress and the repair of the roof of the nave. The Dean has intimated that in the Deanery Hall was some twelfth- and thirteenth-century stained glass, which came from the Cathedral at the time of the Cromwellian sacrilege. This glass was the only remnants in Peterborough of some tons which were destroyed in the cathedral and cloisters. It was first fixed in a summer house in the Deanery garden, and when this structure fell down sixty years ago the glass was put into the windows of the hall. Similar glass was already in four windows of the apse, but the other two windows were a great eyesore, and he (the Dean) would be pleased to offer this glass to go back into the Cathedral, where he thought it ought to be. Unfortunately there was not enough glass in the hall completely to fill the two windows of the apse, but he thought if the Press would give publicity to the fact, possibly there might be some people in possession of similar stained glass and would restore it to the Cathedral. The Restoration Committee have referred the matter to the architect, in consultation with glass experts, for an opinion as to whether the removal and re-insertion of the glass was practicable and desirable.



## Thatch.—III.

By Charles G. Harper.

(See Inset Illustrations.)

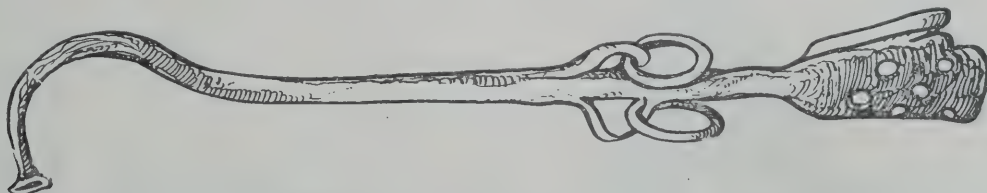


BLANDFORD

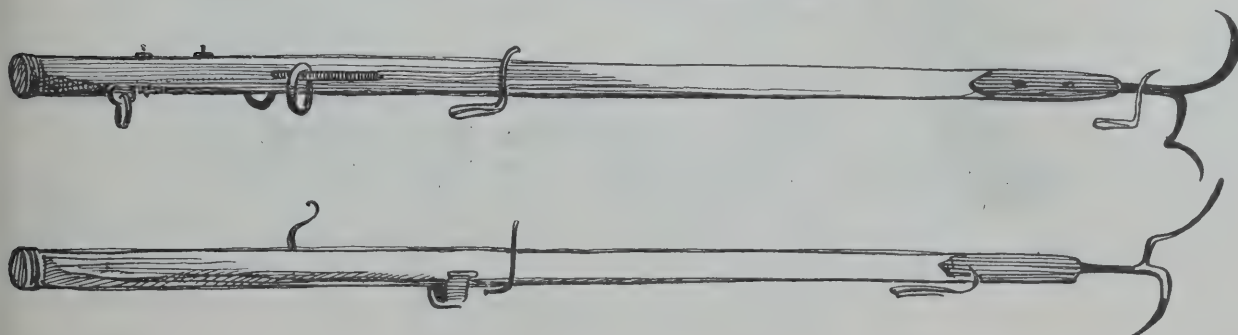
THE fires that some seven years ago so greatly devastated the largely thatched villages of Chesterford, near Saffron Walden, and Melbourn, in Cambridgeshire, serve to show that, whatever may be said to the contrary by enthusiasts for thatched roofs, there remains that risk. The heavier premiums on fire insurance in respect of thatch recognise this danger. Thatch has indeed been in the past the source of much havoc, notably in the history of Blandford and Marlborough, to name but those two places. Directly to the great fires at Marlborough in 1553, 1679 and 1690 is due the rather striking architectural appearance of that town. Before those disasters it had been a town of the usual Wiltshire rustic village type. From its ashes it arose in a newer and more urban dignity, and so it remains exceptional. Most things in the town of Blandford date back to "the fire," which forms the great incident in the story of the place. Not that this was the only fire here. The town was several times burnt. In Camden's time it was destroyed, but was rebuilt; and the like happened again in 1677 and 1713. But the conflagration of 1731 was at once the last and the greatest. It began at a soap-boiler's. How this event impressed the people of Blandford we may yet readily learn from a pump under the churchyard wall in midst of the High Street. Incidentally, we may notice the exquisitely appropriate idea of making a pump the memorial of a fire. It stands in a kind of shrine, and bears this inscription recording that terrible happening:—

In Remembrance  
Of God's dreadful visitation by Fire,  
Which broke out on the 4th of June, 1731,  
And in a few hours not only reduced the  
Church, but almost the whole Town, to Ashes.  
Wherein 14 Inhabitants perished  
But also two adjacent Villages;  
And  
In grateful Acknowledgment of the  
Divine Mercy,  
That has since raised this Town  
To its present flourishing and beautiful state;  
and to prevent,  
By a timely supply of water,  
(With God's Blessing) the fatal  
Consequences of Fire hereafter;  
This Monument  
Of that dire Disaster, and Provision  
Against the like is humbly erected  
By  
John Bastard,  
A Considerable Sharer  
In the great Calamity,  
1760.

As a result of the rebuilding, Blandford is a town of unusual stateliness among small English market towns. The work was done at the time when the classic idea



FIRE-HOOK, ST. BENET'S, CAMBRIDGE.



FIRE-HOOKS, LINTON



HAYES BARTON.—Birthplace of SIR WALTER RALEIGH.

prevailed. It matters little in the general effect if, indeed, the details are coarse and debased. The culminating dignity resides in the tall church tower, which, with the body of the church, is advanced beyond the general building line. It is, however, built of a stone with a rather unpleasant greenish tint.

To cope with the terrible dangers of burning thatch some curious olden devices were brought into use. These were the old "fire-hooks" or "thatch-anchors," as they were variously styled, which may yet be found here and there in rural England, relics of the past. They survive rather as curiosities than as practical engines for subduing fire. These were, in general, stout and extremely heavy oaken poles, from 20 feet to 40 feet in length, furnished with strong iron grappling-hooks. They were used for pulling off the entire roof-covering, and were formidable appliances, possible to be used only by the united efforts of several men, aided in the case of exceptionally large and heavy examples by horses. Such are the "thatch-anchors" preserved at Banwell, near Weston-super-Mare. These are 20 feet in length and are headed like the flukes of an anchor, with four iron rings at the head of the pole and two at the butt, intended for the passing through them of ropes, to enable a larger number of men to help. These Banwell "thatch-anchors" hung in one of the church aisles until 1812, and were then placed in the tower. In 1887 they were removed to a shed behind the fire station. They are fine examples, and are dated 1610, being thus perhaps the earliest in existence. Here is also a fire engine of the same date.

It seems at first strange how often the church was used as the place of storage for these old fire-hooks; but on reflection it will be obvious that the reason lay in the church being the only building long enough conveniently to house these cumbrous contrivances, which, if their efficiency was to be maintained, could scarcely be exposed to the weather. Now that they are never likely again to be used, they have been expelled. Thus, at Ivinghoe, in Buckinghamshire, the old fire-hooks, removed from the church, are to be found on the churchyard-wall, at the west end of the building, under a sort of pent-house roof. Others of this type are to be discovered at Ashford, Kent, in possession of the fire brigade; at Melbourn, Cambridgeshire; at Welwyn, Herts, on the wall of an old cottage in the churchyard; there are two which for long years have hung on the side wall of a house at Linton, Cambridgeshire, which until 1903 was the "Race Horse" inn. They are oddly pronged. The iron-ringed hook end of a very large and clumsy specimen is preserved in the ancient church of St. Benet, Cambridge. It was used last in the Market Hill fire of September 1849. A photograph on view in the church from an old etching displays the scene, with the fire-hook in action. Other hooks of the same kind are yet in the church of St. Bartholomew, Great Gransden, Huntingdonshire, and others at St. Ives and Long Stanton.

A fire-hook, formerly kept in the church of Burgh St. Peter, on the Waveney, in Norfolk, seems to have disappeared. That, as already mentioned, is a thatched church; but it is even more remarkable for its freak tower, chiefly of brick, in eccentric diminishing stages.



BURGH ST. PETER CHURCH, NORFOLK.



# BEAUDEXOL

SUPER WATER PAINT  
IN 40 STANDARD SHADES

*Other Reasons  
for Specifying.*

IT IS

**B**eautiful  
**E**verlasting  
**A**rtistic  
**U**niform in shade  
**D**urable  
**E**conomical  
**X**cellently bound  
**O**bliterating  
**L**ustrous

**BROWN & CRITCHLEY, LTD.,**  
LENZIE, SCOTLAND.

Telegrams: Walpa, Lenzie.

Telephone: Kirkintilloch 51.



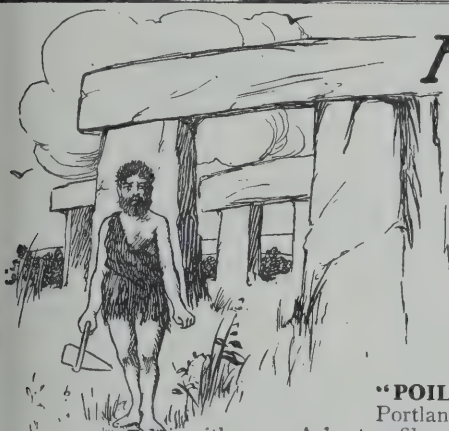
**“Bitumastic”**  
Regd Trade Mark

**Contracts**

Low quotations usually receive favourable attention. Painting contractors can submit low estimates for coating all kinds of structural erections with “Bitumastic” Coloured Solutions, for the covering capacity varies from 2,000 sq. ft. to 3,500 sq. ft. (2 coats) per cwt., whilst the cost per cwt. is less than that of lead paints. Yet “Bitumastic” lasts five times as long and renders rust impossible. Black, Red, Brown, Green, and Grey colours supplied. Write to Dept. “D” for full particulars.

**WAILES DOVE BITUMASTIC LTD.,**  
Newcastle-on-Tyne, London, Glasgow, Liverpool, Leeds, Cardiff, Hull, Manchester, Birmingham, Lowestoft, Dublin, etc.

Telephones in every office. Telegrams—“BITUMASTIC.”



*First—the Stone Age, then the Slate  
and Plaster Age,—now*

**‘POILITE’**  
The Modern Builder's Material.

“POILITE” is made of best London Portland Cement, strengthened tenfold with pure Asbestos fibre. “POILITE” is fire, damp, and rot-resisting. It is easy to erect, can be nailed or sawn, and improves with age. No upkeep cost.

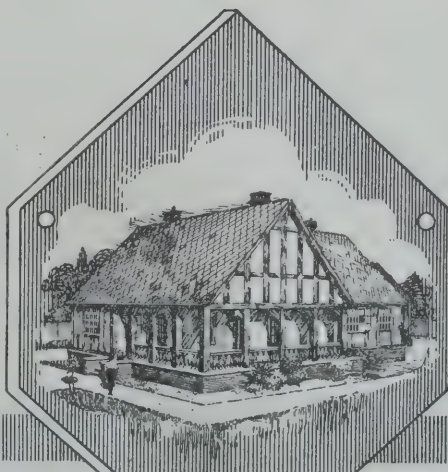
**FOR ROOFS—**

“POILITE” (Bell's Asbestos Cement) Tiles. Stronger than slate—half the weight. Great economy in substructure. Ten per cent. cheaper. Size  $15\frac{3}{4} \times 15\frac{3}{4}$  inches. Chamfered and punched with nail and rivet holes.

**FOR WALLS AND CEILINGS—**

“POILITE” (Bell's Asbestos Cement) Flat Building Sheets. Smooth, hard, fireproof sheets in place of the old time out-of-date plaster. For inside or outside walls. Three standard sizes: 8 ft.  $\times$  4 ft.; 6 ft.  $\times$  4 ft.; and 4 ft.  $\times$  4 ft.;  $\frac{3}{8}$  in. thick and upwards.

“HURCAN” BUILDING SLABS—For cheap and efficient housing. No plastering. Speedy erection. Cost of labour and mortar halved. Appearance as dressed stone.



**Bell's United Asbestos Co., Ltd.**  
Southwark Street, London.S.E.1.





GALLOPS HOMESTEAD.

Fire was indeed an ever-present terror in the old days. An ancient fire-bell hung in the belfry of the west-country Abbey of Sherborne, in Dorset, is dated 1652, and bears the initials "J. W. T. C.," with the piteous rhyme:—

Lord, quench this furious flame;  
Arise, run, help put out the same.

The choice of a rhyme by a versifier obviously very hard beset for one makes quaint reading, but the frantic state of the rustic mind in the presence of fire appears eloquently pictured in this singular couplet. There has always, of course, been abundant historic reason at Sherborne for dreading fire, a great conflagration having almost wholly destroyed the Abbey in 1437, while numerous later fires have devastated the picturesque little town. The bell itself is alike of unusual shape and of uncanny sound. The rim is incurved; producing, as no doubt was intended, a most distinctive and individual note.

Although we cannot declare that in olden times thatch was a more common roofing in any one part of England than another, yet it will be found that in Cambridgeshire and Huntingdonshire more exact measures were taken for dealing with thatched roofs in case of fire than are to be discovered elsewhere. What special means were adopted, if any, for pulling off burning roofs with fire-hooks in other regions does not appear, but in those parts it was the custom to build into the wall-plates under the eaves a series of iron rings. These are extremely interesting to the inquirer into old methods of fire-quelling. The rings, or "ringles," as the rustics name them, are to this day frequently to be seen under the eaves of old houses and cottages in and around Cambridge and Huntingdon. I have not observed them in other districts of England. They were provided for the purpose of affording a hold to the fire-hooks. They represented the maximum of efficiency, for, instead of laboriously seeking a grip upon the burning thatch, by this means the entire roof could be pulled off at once (and probably the careful critic may be allowed to add a great deal of the walling destroyed at the same time). These rings were to be noted, and may yet be, in some cases, at the "Lion," Petty Cury, the "Globe" inn, Newmarket Road, Stourbridge Chapel, the "Hoop" Hotel, Nos. 48 and 60 Bridge Street, 27 Trinity Street, 22 Sidney Street, 5 Benet Street, all in Cambridge, and the Master's Lodge Peterhouse, which Cambridge men, ever irreverent, call "Pothouse" or "Pots," and ignorant outsiders "Peterhouse College." Other rings may be remarked at Trumpington and at Newmarket. They are not very noticeable by the casual wayfarer, being little larger than the rings on domestic curtain-poles, and, usually, very much overhung by the eaves, they inhabit a kind of continual twilight. Sometimes it is seen that a house is provided with several of these rings. For example, there are no fewer than five under the eaves of a house and shop at Linton, opposite where the old fire-hooks still hang. These features some years ago attracted the attention of another observer, who read a paper on the subject before the Cambridgeshire Antiquarian Society. It was reported in the "Cambridge Chronicle," in the

statement that "Communications were made by Mr. G. Wherry upon 'The rings under the ears of old houses.'"

"Rings under the Eaves of Old Houses"; an antiquarian rather than an entomological title, was the true matter of the discourse. The misprint makes a choice companion with the famous "battle-scared veteran" and the almost equally famed "See the pale martyr with his shirt on fire," instead of "of fire." Lest I be suspected of telling a vain tale, I bid you, as Mr. Kipling says "seek it in the files." There, in due course, the report will be found, under date February 28, 1908.

The revival of thatch, whatever the causes, partly artistic and in part economic, is to be welcomed by all who have at heart grace and beauty. Among the earliest of modern country houses to be designed for thatch was, I suppose, Gallops Homestead, the residence of Mr. S. F. Edge, near Ditchling, Sussex. It would seem to have been completed some twenty years ago.

## Architectural Heresies of a Painter.

THE third of the series of public lectures arranged by the Literature Committee of the Royal Institute of British Architects was given on the 19th inst. at 9 Conduit Street, W., by Mr. Roger E. Fry. There was again a well-filled room.

Mr. Fry, who took the above subject for his theme, said he had little doubt that his audience would agree with the assertion that all was not well with modern architecture. It was just possible that, from his ignorant, disgruntled murmurings, suggestions might be picked up capable of elaboration. The "Heresies" he enumerated as follow:—

No. 1.—We have substituted for the art of architecture the art of dressing buildings according to fashion.

No. 2.—This phenomenon is more or less world-wide. In the false architecture which results the English is distinguished by its lack of the sense of scale.

No. 3.—It is distinguished also by its good taste. Good taste in this sense is a social rather than an æsthetic virtue.

No. 4.—There are two possible kinds of beauty in a building: (a) material beauty, which is also the beauty of a locomotive or a panther, and this results from the clear expression of function; (b) æsthetic beauty which results from the clear expression of an idea. We of this country have so arranged that neither of these beauties occur in our buildings.

No. 5.—Æsthetic beauty in a building is essentially the same as that of sculpture. It results from the expression of a plastic idea. There has hardly ever been an æsthetic architecture in England, and there has been even less sculpture.

No. 6.—Our architecture does not express plastic ideas but historico-social ideas.

No. 7.—It is founded upon social snobbery.

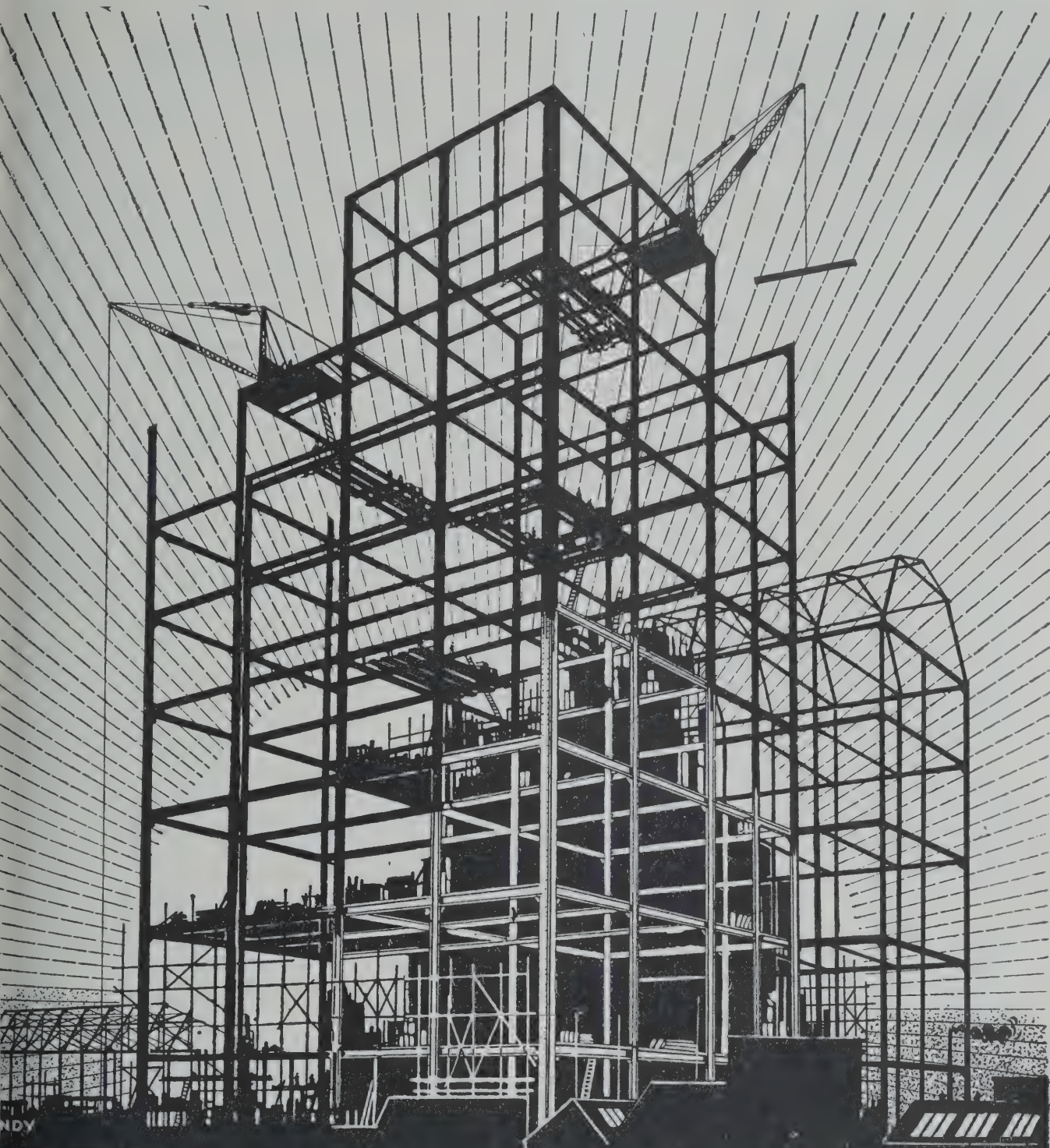
No. 8.—The vices of modern English architecture have almost always been inherent in the architecture of England. Modern conditions have brought out the rash.

No. 9.—Modern conditions and modern science have put into the hands of architects the greatest opportunity in the history of the world. They have missed it completely.

No. 10.—To a great extent this is not their fault.

In elaborating his first thesis Mr. Fry paralleled the vagaries of fashion in dress with those in architecture, and pointed out how buildings which, after they were just finished, attracted by a certain air of piquant novelty, become *démodé* in a few years, and, like clothes of last year, when they are dowdy they are done for. At first some novelty of so-called style, which is really a reference to some past epoch not recently exploited, has an air of chic and suggests social alertness. But the new style, after starting its career in the smart world, gradually descends to lower and lower social depths. Real style was the perfect adaptation of the means of expression to the idea. Style as it is understood in modern





# REDPATH BROWN & CO. LTD

## CONSTRUCTIONAL ENGINEERS

### WORKS AND STOCKYARDS

LONDON  
Riverside Works,  
East Greenwich S.E.

MANCHESTER  
Trafford Park.

EDINBURGH  
St Andrew Steel Works.

GLASGOW  
Pinkston,  
Office 19, Waterloo St

BIRMINGHAM  
Office: 47, Temple Row.

NEWCASTLE-ON-TYNE  
Milburn House.

London City Office :- 3, LAURENCE POUNTNEY HILL E.C.4



architecture is essentially a social symbolism. It implies a belief that beauty is something material, absolute, fixed, and determined like a chemical element, which can pass from one combination to another unchanged and unaffected; whereas, in fact, beauty is a relative quality which inheres in the forms of the object of art only in so far as it is an evident sign of an inward spiritual state on the part of the artist. That is the reason why nothing is so unlike an original work of art as a copy of it—since it is inevitably the expression of a totally different spiritual condition. It is, nevertheless, quite possible for an architect so to assimilate the principles of a past style as to be able really to create something entirely new whilst using similar forms. The most obvious example of such a successful and creative pastiche being the Renaissance architecture of Italy. The general planning and disposition of Westminster Cathedral shows, in the opinion of Mr. Fry, just such a free creative movement along the lines of a past style as alone justifies pastiche. But, alas! what is one to say to the incredible museum of pastiches which makes up most of modern London? What a jargon, what a chattering of Babu-pidgeon-English, what a patchwork of odd phrases picked up here and there and stuck together anyhow as the hazard of momentary convenience suggests!

The characteristics of our own architecture were thought by Mr. Fry to be (1) the absence of the sense of scale, and (2) the presence of a certain kind of good taste. We English, he said, seem incapable of a free or generous gesture. We cramp and skimp and cover. We finish our tiny details with short-sighted, ant-like industry. We invented, alas! the "cosy corner." And the cosy corner in one form or another marks most of our building. Compare our snug little Gothic cathedrals, built piecemeal and without any generous, comprehensive plan, with the vast pretensions of French cathedrals built under the impulse of a single, all-compelling élan, or with the great bare emptiness of Italian churches of the same period.

At no time in the world's history has there been a greater opportunity than now of displaying that natural beauty which results from clear expression of function. At least, said Mr. Fry, we could have a great deal of engineering beauty in our towns; but, alas! the engineer is intimidated by the pressure of social prestige. He, poor man, is not an artist, and society demands art—so he has to allow an architect to put on the art—or he may even himself have enough general knowledge of "styles" to put on the art himself.

Mr. Fry does not consider that most modern architects, pre-occupied as they are with architectural costume, ever make much of the possible play of the elementary plastic forms. They do not feel plastically; their minds do not move freely in three dimensions, they think and feel in the flat. If they did feel plastically they would probably discover all sorts of untried possibilities in the combination of these forms, and in the adoption of them to particular ground plans and to peculiar situations.

The essence of Gothic architecture had been the purely engineering discovery of how to build a stone greenhouse. All its forms were dictated by the structural necessities that this implied; but our early English architects used these forms as fashionable ornaments. They continued to pierce wall surfaces instead of building with glass walls. It was hardly till the Perpendicular that they began to use the Gothic structure with logical certainty and freedom. The same thing happened here with the Renaissance. Therefore, it must be admitted that the vices of modern English architecture had always been more or less inherent in our tradition.

In modern architecture new constructional possibilities are accepted slowly and with a kind of grudging reluctance. Instead of inspiring the invention of new and appropriate plastic forms, the new methods, said Mr. Fry, seem to be slurred over and buried beneath the old stylistic conventions. In some modern painting, however, there is just this atmosphere of fervour, of passionate research, of adventure, of inquiry, and eager expectation, which marks a period of æsthetic achieve-

ment. How much greater that achievement would be if there were only a small group of architects ready to join in these voyages of discovery and to supply and receive mutual counsel and support!

## New Catalogues.

DANIEL ADAMSON & Co., LTD., Dukinfield, have issued a catalogue under the title of "Compressed Air as applied to Sewerage, Sewage Disposal, and Water Supply." The Adamson pneumatic sewage ejectors have been known to engineers for a considerable number of years; the present catalogue describes and illustrates their latest patterns.

MESSRS. J. & W. STEWART, 12 Berkeley Street, London, W., who are specialists in reinforced concrete and concrete piling, have issued as an eight-page reprint an article descriptive of a large grain silo erected for the Merchants' Warehousing Co., Ltd., Dublin. This building was designed by Messrs. Batchelor and Hicks, of Dublin, in conjunction with Messrs. Henry Simon, Ltd., engineers, Manchester, who supplied the machinery equipment. The whole of the reinforced concrete work was designed and carried out by Messrs. J. & W. Stewart from their patented system of "C. P." (cast in place) piling up to the roof. This is a very interesting example of construction, and it is well shown by photographs and drawings.

FREDK. BRABY & Co., LTD., Eclipse Iron and Steel Works, Glasgow, were recently in the happy position of being compelled to enlarge their factory for making metal casements. In their latest catalogue they illustrate a few of their designs and sections for various types and sizes of opening parts, but they are prepared to manufacture casements of every description to suit architects' requirements, either in steel or gunmetal. Three pages are devoted to diagrams illustrating the correct way of measuring openings, and four to stays and handles. Among their recent contracts are the Law Courts in Johannesburg, the Post Office at Pretoria, Hyde Park Hotel in London, the new School of Art in Edinburgh, the Londonderry Guildhall, and the Glasgow Royal Infirmary.

THE NATIONAL RADIATOR Co., LTD., London and Hull have had three new leaflets printed for insertion in their current catalogue, dated September 1919. One leaflet, paged 48A and 48B, gives particulars of the "Ideal Cookstove" as finally arranged; exhaustive tests have shown highly satisfactory results in regard to the three duties of cooking, heating, and hot-water supply. Leaflet 47A describes the "Ideal Draught Alarm," which can be set overnight, on the principle of the alarm clock, to operate the dampers of a heating or hot-water supply boiler at any pre-arranged hour, the following morning, and thus ensure hot water or warm rooms at the required time by admitting increased air supply to the fire and causing this to burn more briskly. A third leaflet, pages 89A and 89B, gives information regarding the Westinghouse Steam Thermostat, which can be adapted to any kind of "Ideal" radiator and makes it possible to secure the advantages of hot-water heating in conjunction with the convenience of steam.

MEDWAY'S SAFETY LIFT Co., LTD., 1 and 2 Bucklersbury, E.C. 4, have produced a very effective and handsome catalogue by the simple expedient of displaying judiciously a few of the many important buildings in which "Medway" lifts have been recently installed, as well as a larger number of photographs of the lifts themselves. As the company can look back on forty years' practical experience and are makers of high-grade electric, hydraulic, and hand lifts and cranes for all purposes, there is an interesting diversity of types shown. Apart from mechanical excellence, the general artistic level of design as exemplified in ornamental enclosures and cages is notably high in the passenger lifts. The company design and manufacture the whole of their lifts, from start to finish, with the exception of the motors. Before despatch each gear and controller is thoroughly tested under working conditions and every possible precaution taken to ensure satisfaction. A shield type of collapsible gate, suitable for every purpose now served by shutters or partitions, is the latest novelty; by it the opening is entirely closed. The concluding portion of the catalogue is devoted to an impressive list of users of Medway's "Britain's Best" electric lifts. Besides the War Office, the Admiralty, the Office of Works, and the Post Office, it includes names of installations not only all over the country, but also all over the world.

MR. F. A. BROWN, chief architect's assistant to the Essex County Council, has been appointed Deputy County Architect of Cheshire, at a salary of £550, rising to £650.



## CONTENTS.

The London Building Act . . . . .	PAGE 383	Competition News . . . . .	PAGE 390
Illustrations . . . . .	384	Forthcoming Events . . . . .	390
Notes and Comments . . . . .	384	Post-War Churches . . . . .	391
London Art Galleries . . . . .	386	Professorship and Public Recognition . . . . .	392
Art News of To-day . . . . .	386	Royal Institute of British Architects . . . . .	396
R.I.B.A. Conference at Liverpool . . . . .	387	Correspondence . . . . .	396
The Architectural Association . . . . .	388	General . . . . .	396

## The London Building Act.

It is a matter of common knowledge that the Metropolitan Building Acts will be revised and amended during the next few years, and it is very necessary when that time comes that their various clauses should be exhaustively overhauled, and that the result of such revision should, if possible, take the form of a *Code Napoleon* rather than an addition to the voluminous Acts and amending Acts which now constitute the building law of London. We hope that district surveyors who administer the Act will be given much more discretionary power than they now possess, and that the law will be rendered simpler and more elastic than at present.

It is easy to understand how complications must arise in attempting to meet every possible contingency that may arise in buildings erected under the direction not only of trained architects, but of speculative builders and others who have had little education in planning, and sometimes little knowledge of construction; but in reality the two classes of men should be treated on a different footing. Two men may design a room of equal superficial area with equal window spaces, yet in the one case a room may be well lighted and efficiently ventilated, and in the other the reverse of those conditions may obtain. Similarly, the disposition of open space in rear of a building may be so manipulated by a skilful designer that a relatively smaller area is more efficient than a larger one for purposes of ventilation and lighting. A space in rear of a building may also be so disposed as to be of greater or less use to the adjoining premises, while it would sometimes be easy to demonstrate that a design which infringed sections of the Building Act was actually more hygienic than one which did not.

Some of the sanitary provisions laid down are too rigid. An area of 100 ft. super. may be quite unnecessary for a certain ventilating area, while on the other hand it may be insufficient in another case. This depends entirely on its position and the type of building of which it forms a feature. The regulations about soil pipes and other sanitary adjuncts need revision, both in the Metropolitan Building Acts and those of every urban and rural district in the country. Why should no one be permitted to carry soil pipes internally if they are made of lead? In Manchester soil pipes must be internal; in other districts they must be external, and there is no reason for such discrepancies. The whole of the provisions with regard to places of public resort, theatres, and concert halls require simplification and relaxation.

In the interests of the public it must be remembered that if by unnecessary regulation the cost and difficulty of building is increased, the public suffer as a whole, for such regulations keep down the rateable value of the metropolis, and so necessitate greater rates for a smaller number. It is in the public interest that rates should be as light as possible, and that a greater number of remunerative undertakings should be encouraged in every town, so that the area of collection should be widened.

Rating, like taxation, should not be heavy enough to reduce the total receipts; but even before the war it was sufficiently onerous to necessitate the moving of great industries to the country and to the Clyde and Tyne. The cost of building is only one of many factors which keep the rateable value of the metropolis down, but it is a factor, and one which over-regulation has rendered more acute.

We do not impute blame to those who administer the Building Act. They—whether district surveyors or officials of the County Council—have their duties laid down for them by the Act. They cannot exercise discretionary powers if they have none—save at their own risk—a risk that a prudent man objects to taking. Nor is it their fault that the London Building Acts are now expressed in a complicated series of enactments which none but an official can thoroughly master.

Probably, reduced to the simplest and shortest form, it will be impossible to codify the London Building Acts in a short document, but there is one way in which public interests might be served.

If a special court were formed, consisting of architects, officials of the London County Council, and legal experts, and this body were given discretionary powers, not only to interpret the Act, but to override its provisions where they thought fit, and if this body were entitled to charge a fee of, say, one-half of 1 per cent. on the cost of the building schemes brought before them, it could be maintained without cost to the public.

The theatre or hotel promoter, or the business organisation might have their schemes examined by such a body, whose sanction would safeguard the community, while their freedom from binding enactments would enable them to consider each proposition on its merits. Such an institution would relieve the district surveyor and the officials of the Council, while it would be at the option of anyone who built to use the ordinary or special channels for their particular business.

But while we advocate the elimination of unnecessary restrictions, we believe the London County Council might introduce new restrictions of an aesthetic character in the interests of the whole community. We allude specially to the curse of the displayed advertisement and the question of the shop front. With regard to the former, we should like to see it made illegal to put any lettering on the front of a building other than that introduced over a shop front or at the sides of an office doorway. We might build structures which would surpass the Parthenon in their beauty, but there is no authority to prevent the erection of lettering glorifying the name of a patent soap and carried across the windows of their façades. One of our main thoroughfares in the neighbourhood of Tottenham Court Road has been chosen by an outfitter to erect some unpleasing figures which advertise the men's underclothing he makes. The building so decorated is not beautiful, but it would be difficult to convince an intelligent



stranger than those who permitted such things had any feeling for architecture.

With regard to the shop front, we should like to see the fascia lines over shop fronts regulated in height and size for whole districts, the size and character of lettering on them fixed, and the prohibition of all other permanent lettering on the building. As it is, if we want to find the name of a shop we sometimes find it above, and sometimes below, the window, whereas in other cases it is written diagonally across windows or stands out in metal letters across the front. These devices cost the trader money, while they lead to the spread of an evil habit, for the modest shopkeeper cannot afford to be silent when placed between flamboyantly-inclined neighbours. We would go still further and lay down as a regulation that a fixed proportion of voids and solids should be employed by everyone who erects a shop front. It is beside the point to argue that we can construct a shop front without visible supports, for we know it is only a question of how much we are willing to pay whether we have a shop front 20 ft. or 60 ft. wide. Why should any man be allowed to so construct a front as to spoil the æsthetic value of a portion of a street? The whole object gained is a few feet more window space, and if everyone had to submit to the same limitations the relative appeal of each tradesman to the public would remain as it is to-day. If anything, we should be protecting the smaller shopkeeper, who is not able to pay the heavy cost of acrobatic constructional feats, and so such limitations would be essentially democratic in character. A shop is, intrinsically-speaking, but a mere storehouse for the sale and display of goods, and the shopkeeper is usually a middle-

man. We are not exalting commerce and industry by giving him licence, for the home of industry and commerce is the factory, the mine, and shipyard. If we want to honour commerce, let us think of the places where actual production takes place, and not the mere market for sales. The interior of a store or shop is a field for good arrangement suitable for display. Their outsides should not, we think, ape that of public buildings or constitute a monstrous advertisement. The public authority erects places for the bestowal of rubbish in the public streets; we should like to see the great mass of unmeaning and vulgar rubbish which spoils our streets cleared off our buildings.

To sum up, we recognise the great work the County Council has done for London, and we would urge it to simplify and recodify the Building Act as far as it is possible to do so, and to erect a special tribunal on a self-supporting basis which would examine schemes put before it, sanctioning them; or otherwise, after examination. For æsthetic purposes, we should like to see the powers of the London County Council very widely extended, for they, and they alone, can insist on an end being put to the vulgarisation of the metropolis. The efforts of private societies and individuals can in this direction do little, nor can we trust to the effectiveness of individual example. We have not made a suggestion which would cost the ratepayer anything or would increase the necessity for enlarged official staffs. On the other hand, the salutary reforms advocated would tend to decrease the cost of building in the metropolitan area, and would lessen the amount of the inevitable red tape, from the superabundance of which we all suffer.

## Illustrations.

HOTEL AT THE DAM, AMSTERDAM. MEWES & DAVIS, Architects.

## Notes and Comments.

### A Crowning Outrage.

THE destruction of the Dublin Custom House by organised incendiarism is the greatest outrage yet wrought by the murder-gang who have brought discredit on the name of Ireland. There have been even more brutal and disgusting exhibitions of criminalism, but none more senseless. Whatever difference may exist in politics, there can be no reason for destroying a fine building which would at the present time cost several hundred thousand pounds to replace. We have little doubt that the damage done will be found to be partial, as the massive stone fronts of the era can hardly be destroyed by fire, but unquestionably a very large sum will have to be expended if Gandon's masterpiece is to be restored. The Custom House is a building which may truly be said to be to Dublin what Somerset House is to London, and we can realise what an architectural loss the destruction of Somerset House would be to London. It would be a fitting punishment if the incendiaries who were caught red-handed had to spend the remainder of their lives working in chain-gangs on the repair and erection of buildings, though it would be even better if they were shot and the world rid of a gang of dangerous criminals. It will be remembered that Gandon's other great building, the General Post Office, was destroyed in the rising of 1916.

### Mr. Fry's Criticisms.

"THE TIMES" devotes a half column to the report of an interview with Sir Reginald Blomfield on Mr. Fry's recent paper at the Institute. We think this is giving the subject too much importance, as Mr. Fry said nothing which is remarkable, except as an example of what a man may say to render himself notorious. Probably a

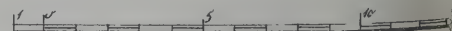
large crowd would assemble to watch the Prime Minister pass down Whitehall in a clown's dress, and eccentricity of any kind unfortunately always secures undue notice. We believe if the Press would pass a self-denying ordinance and give absolutely no report of foolish sayings and doings that we might in a few decades purge our life from notoriety hunters. This even applies to greater and more serious things. If we could imagine the Press of the whole country taking no notice of the coal strike, beyond the bare mention that it had taken place, we believe the colliers would now be working and a similar silence would be very efficacious in putting an end to Irish disturbances. For it is obvious that misguided persons will do what they know is either wrong or absurd if they are only supported by sufficient notice, while a cold douche of absolute silence would free us from a plague of decadent writers, futurists, would-be revolutionists, and others, who, as W. S. Gilbert put it, "would never be missed."

### The President of the R.I.B.A. and the Associates.

THE President of the R.I.B.A. has sent an invitation to all the Associates of the Institute to meet him and the Hon. Secretary on Tuesday, June 7, at 4.30, to discuss the steps taken towards the Unification of the Profession. The proceedings will be quite informal. The President trusts that the engagements of Associates will permit them to attend, and that they will express their views frankly. If they do so the meeting is likely to be a prolonged one! Although we have no doubt that the subject has been exhaustively discussed by the Unification Committee, we are not greatly drawn towards either of the solutions proposed. We believe it would have been preferable to create a fourth class of Members, simply



FOR LIBRARY  
OF THE  
UNIVERSITY OF ILLINOIS











FOR LIBRARY  
OF THE  
UNIVERSITY OF ILLINOIS





3rd. 1921.



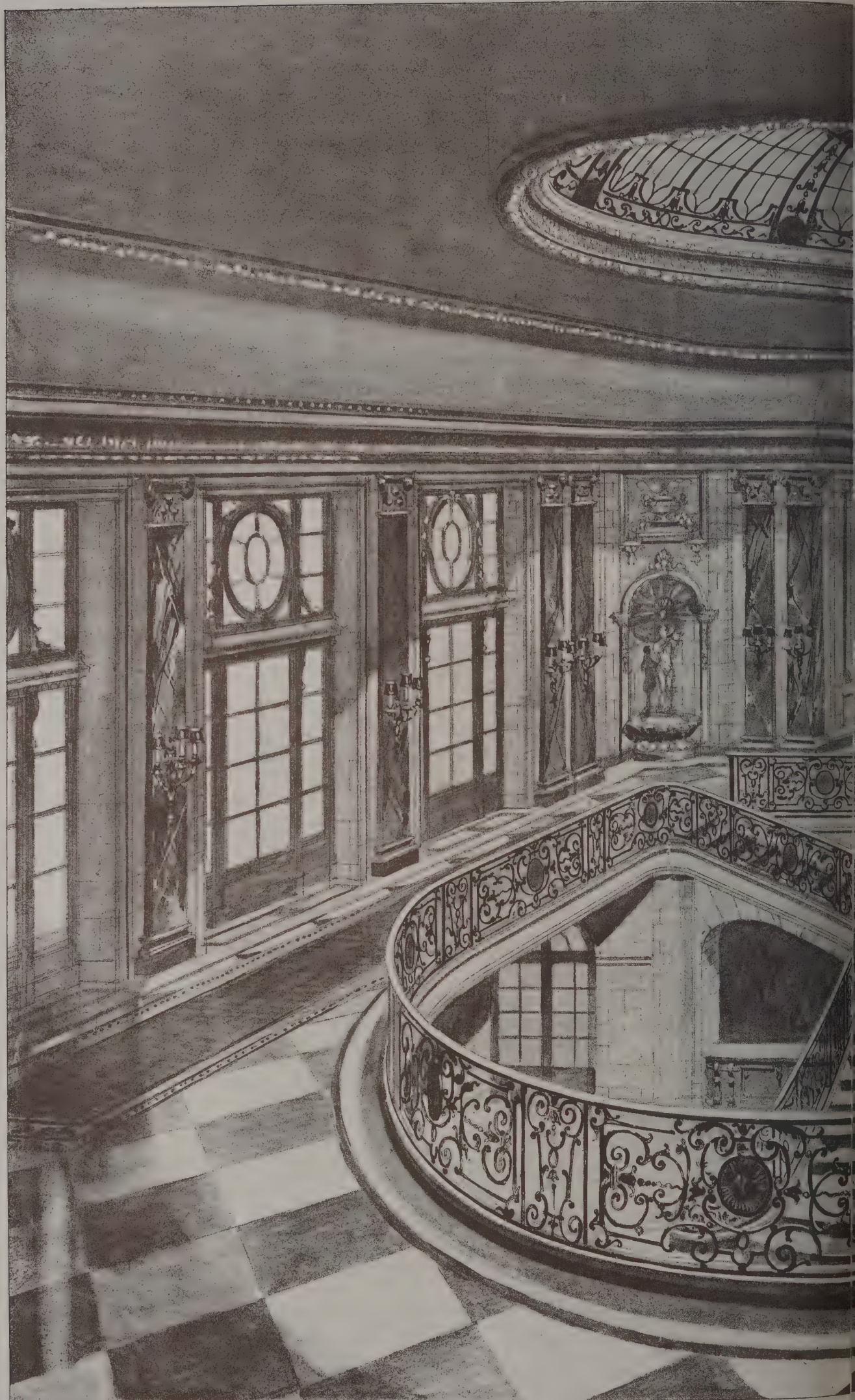
SCREENLESS PHOTO PROCESS, SPRAGUE-HAYCOCK PRINTERS, LTD. 69, 71, DEAN STREET, LONDON, W.1.

RDAM.

THE LIBRARY  
OF THE  
UNIVERSITY OF MICHIGAN



THE LIBRARY  
OF THE  
UNIVERSITY OF ILLINOIS





NE 3rd, 1921.



SCREENLESS PHOTO PROCESS, SPRAGUE-HAYCOCK (PRINTERS) LTD. 69 & 70, DEAN STREET, LONDON, W.1.

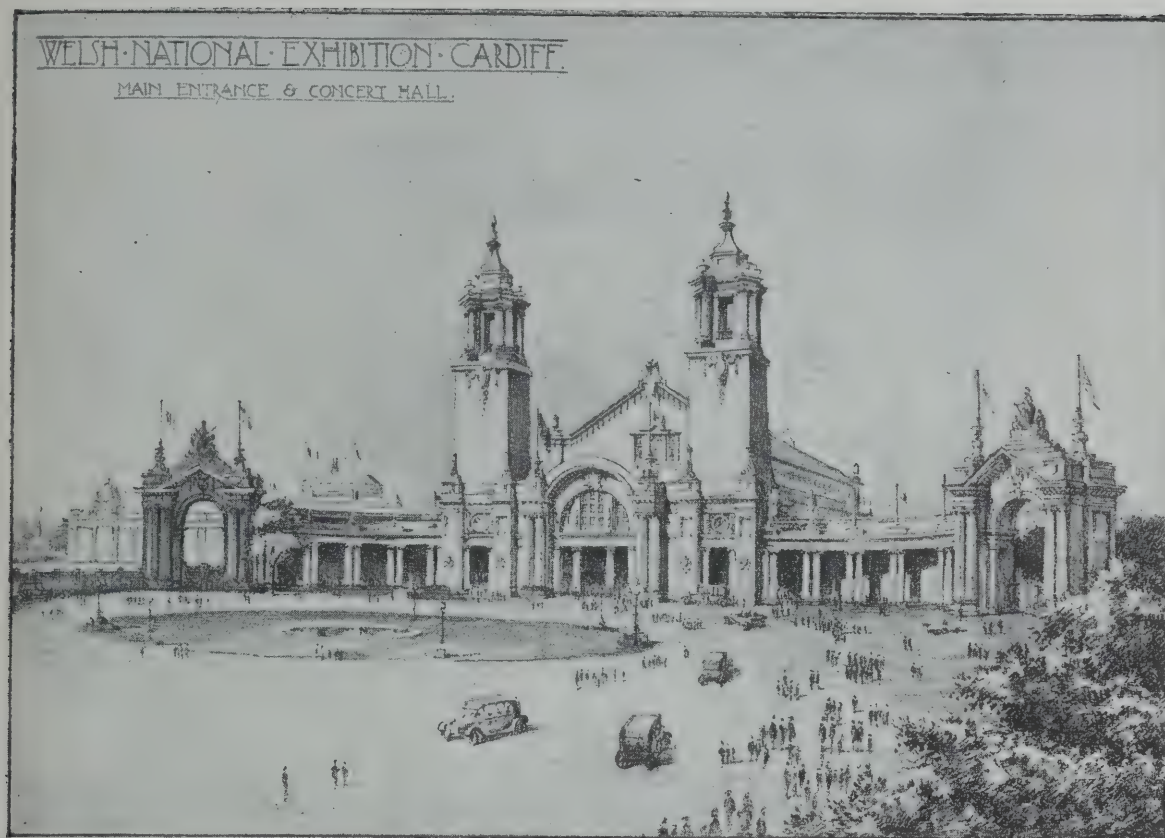
AMSTERDAM.

ECTS.

THE LIBRARY  
OF THE  
UNIVERSITY OF ILLINOIS

THE LIBRARY  
OF THE  
UNIVERSITY OF ILLINOIS





THE WELSH NATIONAL EXHIBITION, CARDIFF. —View of Proposed Concert Hall. Sir CHARLES RUTHEN, O.B.E., Hon. Architect.

entitled Members of the R.I.B.A., and to take in the Members of the Society into this class, which would automatically come to an end in time. Such a plan would leave the organisation of the R.I.B.A. unaffected, and everyone desirous of passing into its various classes would do so by the ordinary channels. The Society might be left to divide their members into two divisions, the first of which would have the voting powers of Fellows and the second of Associates; the two classes to be allocated in the ratio of the present proportion of Fellows and Associates. But for reasons we have explained, though we are glad to think that Unification should come, we do not regard it as being as important as other matters, which it lies with the individual to promote personally and on which his success will mainly depend.

### The Welsh International Exhibition.

It is proposed to hold a great International Exhibition at Cardiff from May to November, 1922, which will be devoted to illustrating the Industrial Development of Wales, and will be divided into sections of mining, agriculture, education, health and housing, fine arts and historical matters. There will be a permanent Concert Hall which will have a seating capacity of 6,000 to 7,000, and will be situated near the main entrance. We give a general view of the buildings from a design prepared by Sir Charles Ruthen, which are to be erected in Sophia Gardens Field. It has been generously offered for the purpose by the Marquis of Bute. Mr. Lloyd George will be President, while the exhibition is already officially recognised by the Ministries of Education, Health, Mines, and Agriculture, the head of each Ministry accepting the position of honorary president of a section of the Exhibition. It is already proposed that the Concert Hall should form a permanent building, as a hall of its dimensions is needed in Cardiff. The taste for exhibitions seems to be a universal one, and we have little doubt that this ambitious project will be successful.

### The Building Gilds again.

A DEPUTATION of the Manchester and London Building Gilds has visited Sir Alfred Mond to ask for the restoration of the "pure gild form of contract," which they obtained many months ago from the Ministry, but which was suddenly withdrawn in favour of lump-sum contracts. The Gilds regard this as taking the whole

virtue out of their system, forcing profiteering on them, and corrupting the relations between producer and consumer. It appears that, like the miners' leaders, the organisers of the Gild must meddle in political matters which do not concern them, and we are glad to understand that Sir Alfred Mond has given them no rope. All that is asked is that the Gilds which profess to believe they can build better and cheaper than others should express that conviction by a lump-sum price. They prefer (as many contractors prefer) a system of cost *plus* profit, but we all know that business men and the public prefer to know where they stand. It would be unfair to require a contractor to tender if the gilds were allowed to work on quite another basis. As for profiteering and corruption being forced on the gilds, all that can be said is that if they are so intrinsically vicious that they cannot trust their organisers to forecast with reasonable accuracy cost and profit, to be divided in the manner they wish, it would be best not to employ them at all. The controversy reads to us like a chapter in the miners' dispute, which has mainly arisen because mischievous agitation has converted an industrial dispute into a political one.

## "The Architect" Fifty Years Ago.

JUNE 3, 1871.

A CANAL, fifty miles long, the cost of which is estimated at 2½ million sterling, is about to be built from the Spree to the Elbe. It will connect Berlin with the Atlantic *via* Hamburg, and will open up the rich stone quarries of "Saxon Switzerland" to the building markets of the Continent.

THE Housing Committee of Edinburgh Town Council recommend the acceptance of tender for the erection of ninety additional houses at Abercorn. The total sum involved is £75,707, which works out at about £840 per house. The Building Guild's tender for a number of houses was not successful.

DR. MILLSON, medical officer of health for Southwark, has submitted to the London County Council schemes for the clearance of three overcrowded and insanitary areas in Walworth. These are: East Street area, 577 houses; Draper Street, 40 houses; and Rockingham Street, 250 houses. The total area is about 25 acres, and in the 867 houses there live 5,112 people. Until further housing accommodation is available the clearance schemes cannot be proceeded with.



## London Art Galleries.

(All rights reserved.)

THE exhibition of Ancient Egyptian Art, which I have already mentioned as having opened this month at the Burlington Fine Arts Club, has a two-fold interest and appeal; it may be approached from the point of view of the professed Egyptologist, or again from that of the lover of beautiful art, whether ancient or modern. From either aspect the exhibition will have a good deal to say that is of value and interest. When the last Egyptian exhibition in this club, more than twenty years ago, was organised the study of Egyptian art commenced with the Pyramid Age; now it can be traced back to the beginning of the Dynastic period, but the point to be noted is that already in this early time such skill of design appears (the cutting of hieroglyphs, it has been said, is as fine in the First Dynasty as in any that succeeded it, and the same applies to the early ceramic work) that we look back farther to see if we can trace the beginnings in that Prehistoric Egypt only yet known to us from monuments south of the Delta.

It was in the Delta itself that the earliest use of hieroglyphic writing appears; but it is suggested by Mr. Percy Newberry—a suggestion to which I have already referred in these columns—that the resemblance between the monuments of early Egypt and early Babylonia seems to point to some common source from which both Egypt and Babylonia drew their inspiration. On this point an architectural feature of housing design comes to help us. The early royal palaces of the Delta were of coniferous wood hung with tapestry-woven mats. But Egypt was not a timber land, and even in the Pyramid Age drew her supplies from the Lebanon region; and the inference is that “we may not unreasonably look to Syria as having had some influence on the earliest dynastic Art of Egypt.”

Turning now to the purely artistic interest, which, I must confess, appeals to me most directly, we are really astonished at the beauty and fertility of design of this early art of Egypt. Egypt is the true mother of Ceramic Art, and on this side the present exhibition is very rich. The vases here of exquisite blue were probably in many cases connected with funeral rites; and the blue glazed faience, often marbled dark blue on light blue and covered with a fine vitreous glaze, has probably been never excelled. This wonderful blue glazed faience came down as far as the Roman domination; so that from Egypt to Rome, from Roman tradition to Venice, and thence to Bohemia and Western Europe is the sequence of pottery, this precious possession of civilised man. This blue faience is used in the “Shawabti” figures of kings and priests which fill Case H. The High Priest of Amon, Pai-nozem, appears here four times, lent by Lady Ward, the Hon. R. Bethel, and Rev. W. Macgregor, while the Earl of Carnarvon lends a deep blue faience figure of King Seti I.

Again in purely plastic art these Egyptians are astonishing. “They were not idealists like the Greeks,” says Mr. Newberry, “they did not seek to generalise, to idealise the human figure. They endeavoured to copy nature, to transcribe it; they were realists.” Nothing could, in fact, be more realistic in feeling than the statuette (Case O) of a woman wearing a full wig and plain loin cloth, giving her left breast to a child, or that delightful little bar (Case P) decorated with different animals, all in low relief and finely finished, lions, crocodiles, frogs, and a tortoise, while elsewhere the hippopotamus appears in blue glazed faience. In some of these reliefs the decorative treatment of the figure is very fine. This is specially to be noticed, among others, in the ivory casket (Case T. 13), whose beauty of design was pointed out to me by an Italian artist, with hieroglyphs and figures in

very delicate low relief, against a stained background of the most exquisite green; and yet again in the toilet box (Case U. 7), the handle formed of a nude girl among papyrus plants, found only last year in Herakleopolis. We come back to realistic art in the potsherd (Case P. 12) where a girl (and the type of these Egyptian women, princesses, or even dancing girls or slaves, is of wonderful refinement) is caressing her ape; she holds the little monkey in her arms, and lets it gently stroke her nose.

At Walker's Galleries was opened on May 23 to June 4 an exhibition of Swiss sketches and water-colour drawings by J. Hardwicke Lewis and M. Hardwicke Redman, who is the above artist's daughter, and obviously to some extent his pupil. Her technique in these sketches of Switzerland, mounted in cream-white on the left wall, is more free and bold than her teacher's; but some of the latter's work, showing the mountains mirrored in the lake or the snow on the high ranges, is of great delicacy and truth, good examples of reflections being “The Grammont in Cloud,” and of snow painting “La Dent de Morcles from Corbeyrier.”

In the next room in these galleries Mrs. Olive Tilton opened on May 27 an exhibition of portrait studies in oil, some of which possess considerable merit and even brilliancy. Mrs. Tilton, who has a studio in New York and also, I believe, at Bar Harbour, U.S.A., is most successful with her women and children, two of the latter here, “Fancy Dress” and “Miss Mildred Tilton” being studies of her own little girls. There is no deep penetration in the fifteen portrait studies here exhibited, but considerable charm, and sometimes, in such an inspiring model as “Miss Audrey Emery,” who reappears as “Girl with Dog,” a real suggestion of plastic beauty.

The Brook Street Art Gallery is now shewing some decorative designs by Guy de Gerald, a young artist who has evidently a sense of colour and pattern (note the crimson and green of his “Costume Fantastique,” though here and elsewhere the influence of a great predecessor in this art may be traced), but is weak in actual drawing in such figures as his “Danseur Egyptien” and “Costume Oriental,” where the head is several sizes too big for the figure. Miss Ethel Wright is showing in this Gallery modern flower paintings, in which she is among the best (“Early Peonies,” and “Tulips”) and some impressions of Corsica, which are less convincing. Of interest to architects will be the studies of Burmah and the East by Mr. A. B. Cull promised for June 6 in this Gallery.

S. B.

## Art News of To-day.

AT Messrs. Christie's sale last Friday the Italian paintings from the Douglas Freshfield collection did not fetch very high figures, the best being the “Saint Jerome at his devotions,” a fine piece in colour, by Lorenzo Lotto, which brought 115 guineas, while a Bassano (“Adoration”) fetched 19 guineas, a Canaletto 34 guineas, and a Mainardi (Virgin and Child) 31 guineas. The main part of the late Earl of Camperdown's pictures was sold in 1919, when Turner's “Linlithgow” brought 7,400 guineas, but twenty-six paintings remained to be sold on Friday, the Van Croos landscape bringing 140 guineas.

It has been noted that T. Luny is beginning to come into favour, and in fact his “View of St. Paul's Cathedral from Blackfriars Bridge,” dated 1793, was bought in Friday's sale by Messrs. Agnew for 220 guineas; while of the three William Marlow's which followed another view of St. Paul's, with York Gate in the front, was taken by the same buyer at 190 guineas.

An exceptionally interesting display of early wooden drinking cups and utensils is being now shown by Mr. Evan Thomas at 20 Dover Street, W. This collection, which is very rich in old wassail bowls, is practically unique, and of such interest that we shall return to it in a later issue. The collection is exhibited at the above address from May 23 to June 21 and is worth a visit.





GREAT END, SCAWFELL. By REGINALD HALLWARD. (From a Drawing exhibited at the Twenty-One Gallery, Adelphi, W.C.)

## R.I.B.A. Conference at Liverpool.

In pursuance of the policy announced in the annual report, the Council of the Royal Institute of British Architects have organised the first annual provincial Conference of architects, which will take place at Liverpool on June 24 and 25.

The arrangements have been made by the Council of the Liverpool Society, in consultation with a Committee of Presidents of the Allied Societies, and the Royal Institute is deeply indebted to those members of the Liverpool Society who have given their time and energy so generously in order to secure the success of the Conference.

A very interesting and useful programme has been arranged.

The underlying idea of these Conferences is to bring the London and provincial members of the Royal Institute into closer and more effective touch with one another, to enable the provincial members who cannot spare the time to attend many meetings in London to express their views on subjects of vital interest to the profession, and to bring home to the general public the organic unity of the organisation of the architectural profession.

It is, therefore, hoped that all members who can possibly arrange to do so will attend the Conference and take this opportunity of becoming better acquainted with the views of their colleagues in other parts of the country.

### PROVISIONAL PROGRAMME.

*Thursday, June 23.*—Members arrive in Liverpool.

*Friday, June 24.*—10 A.M.—Official opening of the Conference and reception by the Lord Mayor of Liverpool. 10.30 A.M. to 1 P.M.—Papers followed by discus-

sion on: "The Unification and Registration of the Architectural Profession," "Official Architecture," "Propaganda and Publicity." 2 P.M.—Excursion to Port Sunlight and Bromborough Pool. 7.30 P.M.—Banquet at the Midland Adelphi Hotel.

*Saturday, June 25.*—10.30 A.M. to 1 P.M.—Papers followed by discussion on: "Building Contracts," "Architectural Education," "Present-day Building Problems." 2.30 P.M.—Visits to Liverpool Cathedral and the Cunard building. 4 P.M.—Tea at the Britannia Café at the invitation of Messrs. Willink and Thicknesse. 4.30 P.M.—Trip up the river arranged by the White Star Steamship Company.

*Sunday, June 26.*—11 P.M.—Service in Liverpool Cathedral.

1. The headquarters of the Conference will be in the Conference Room in the Walker Art Gallery, where there will be an Exhibition of Students' drawings on view.

2. Members of the Conference are requested to make their own arrangements for hotel accommodation. The hotels specially recommended are: The Midland Adelphi Hotel, The Exchange Hotel, The London and North-Western Hotel.

3. The Conference banquet, at which ladies are particularly invited to be present, will be held at the Midland Adelphi Hotel. (Evening dress, medals, &c.) The price of the banquet will be 12s. 6d. each, exclusive of wine and cigars.

4. Members who intend to be present at the Conference are requested to communicate as soon as possible with the Secretary, R.I.B.A., 9 Conduit Street, London, W. 1, stating the fact and mentioning whether they will be present at the banquet and whether they will be accompanied by any guests.



## The Architectural Association.

AN ORDINARY general meeting of the Architectural Association was held on Monday, May 30, at 35 Bedford Square, W.C., Mr. G. Gilbert Scott, A.R.A.; F.R.I.B.A., president, in the chair.

The proceedings were prefaced by the usual informal dinner. The first item on the agenda was the election of the following fifteen new members: Miss P. J. Freeman, Miss A. Wolkoff, Miss E. G. Cooke, Mr. C. L. Pope, Mr. J. V. Downes, Miss M. Eshelby, Miss V. M. J. Martin, Mr. J. P. C. Chaurès, Mr. E. A. C. Ricketts, Miss E. K. D. Hughes, Miss I. J. Macfadyen, Miss T. C. Stanley, Miss G. Gale, Mrs. Clark, and Miss I. R. Harding.

There were ten nominations for membership.

### OFFICERS AND COUNCIL FOR SESSION 1921-1922.

*President*, \*W. G. Newton, M.A., A.R.I.B.A.; *Vice-Presidents*, \*F. C. Eden, M.A., and \*E. Stanley Hall, F.R.I.B.A.

#### Ordinary members of Council:—

\*Major H. Barnes, M.P., F.R.I.B.A.; \*Cyril A. Farey, A.R.I.B.A.; Gilbert H. Jenkins, L.R.I.B.A.; \*H. I. Merriman, A.R.I.B.A.; A. H. Moberley, F.R.I.B.A.; A. B. Ll. Roberts, A.R.I.B.A.; Manning Robertson, A.R.I.B.A.; L. S. Sullivan, A.R.I.B.A.; T. S. Tait, A.R.I.B.A.; and \*M. T. Waterhouse, A.R.I.B.A.

*Past President*:—\*G. Gilbert Scott, A.R.A., F.R.I.B.A.

*Hon. Treasurer*.—\*Stanley Hamp, A.R.I.B.A.

*Hon. Editor "Architectural Association Journal."*—

\*M. J. Tapper, A.R.I.B.A.

*Hon. Librarian*.—\*G. G. Wornum.

*Hon. Secretary*.—\*J. Alan Slater, M.A., A.R.I.B.A.

\*Members of the present Council.

A vote of thanks was passed to Messrs. E. S. Wills, H. W. Lindo and H. Clist for their work as scrutineers in connection with the election of the Officers and Council.

Mr. G. Gilbert Scott, the president, offered his personal thanks to the council for their whole-hearted support given to him during his term of office. Mr. Maurice E. Webb took over the work of the Association at a most critical time. It was due to his able counsel that a progressive policy was then adopted and the A.A. went boldly forward, so that their school now stands at the head of the architectural schools of the country. When he (Mr. Scott) followed Mr. Webb it was to find the Association in debt to the tune of £20,000—all necessary expenditure. This year the council started a scheme to try and wipe off that debt. They had just issued a debenture appeal and an endowment fund. A very favourable response had already been received. Sir Henry Holloway had told them that in order to show his appreciation of the kindness received from the architectural profession during his business career he and his fellow-directors had decided to give the sum of £5,000 for the establishing of scholarships. Before that donation had been given Sir Henry Holloway had agreed to take up £10,000 of debentures in order to save the Association from paying him all that it owed. The net result was a gift of £5,000 and £5,000 in debentures. The Endowment Fund now stood at £6,100. That was an extremely satisfactory result for one week, and was, he believed, almost entirely due to their indefatigable secretary, Mr. Yerbury, whose work was beyond all words of praise, and to whom they owed most grateful thanks.

Mr. Maurice E. Webb said he was sure they would like to thank Mr. Gilbert Scott for all that he had done for the Association. It had been easy to spend money but it was fearfully difficult to collect it.

The following two lists show the present response to this issue of Debentures and the donations and promises for the Endowment Fund:—

### ENDOWMENT FUND.

	£	s.	d.
Messrs. Holloway Bros.	5,000	0	0
R.I.B.A.	500	0	0
"The Builder"	100	0	0
The Society of Architects	50	0	0
F. C. Eden	5	5	0
G. Gilbert Scott	21	0	0
W. G. Newton	5	5	0
Knott & Collins	26	5	0
Detmar Blow	26	5	0
Maurice E. Webb	52	10	0
Academy Architecture	5	5	0
"Building News"	10	10	0
H. Farquharson	10	10	0
J. Alan Slater	5	5	0
E. Stanley Hall	10	10	0
Stanley Hamp	26	5	0
J. Leaning	52	10	0
Cyril A. Farey	5	5	0
Paul and Michael Waterhouse	10	10	0
A. Dunbar Smith	5	5	0
Henry M. Fletcher	21	0	0
G. Stickney	21	0	0
Rowland Bros.	2	2	0
Barrett & Wright, Ltd.	5	5	0
Hall, Beddall & Co., Ltd.	26	5	0
W. L. Trant Brown	10	0	0
R. C. Gleed	2	2	0
Oatley & Lawrence	25	0	0
W. J. Hall's	5	0	0
Francis C. Read	1	1	0
E. O. Warne	50	0	0
	£6,097	0	0

### ISSUE OF £20,000 FIRST MORTGAGE DEBENTURES AT 6 PER CENT.

	£	s.	d.
Messrs. Holloway Bros.	5,000	0	0
Maurice E. Webb	250	0	0
Sir Aston Webb	500	0	0
Harold I. Merriman	50	0	0
Edwin T. Hall	250	0	0
E. Stanley Hall	50	0	0
F. & H. F. Higgs, Ltd.	150	0	0
Barrett & Wright, Ltd.	250	0	0
H. Farquharson	50	0	0
W. H. Ward	100	0	0
Other promises	700	0	0
	£7,350	0	0

Mr. G. K. Chesterton was warmly greeted by the crowded audience on his arrival after dinner to speak on "A LAYMAN'S VIEW OF ARCHITECTS AND ARCHITECTURE."

Mr. Chesterton said he approached with considerable trepidation, though he ought to be hardened because of late he had often found himself in places where he ought not to be, talking on subjects about which he knew absolutely nothing to people who knew everything about them. Recently, at Brighton, he found himself on the platform of a meeting for the converting of cannibals, a sport of which he was entirely ignorant, instead of one held to discuss our relations with the United States. It was the Association's heroic purpose to extort a series of disconnected remarks on the art of architecture from one completely ignorant of it. The same object would be equally served if they rushed out to the street and dragged back into the room a casual passer-by in order to extract opinions somehow from him. The first thing to strike a normal ordinary outsider who considered the particular position in which architecture seemed to stand among the arts just now was that their art was the only sane one left. Every other art was the playground for all kinds of extraordinary experiments—some promising, others rather threatening. But architecture had certain fundamental elements in its own nature which prevented it going beyond a certain point in those directions. One of the things keeping architecture sane was the fact that it was connected with certain realities and with the laws of nature. In writing one might see a large number of examples of poetical prose and prosaic poetry, and in





MR. G. K. CHESTERTON.

lyrical poetry many of the compositions are called songs, though it was unnecessary for anyone to sing them. But people have to live in houses—people contrive to live in the houses of the most imaginative architects. There are obvious limitations of the power of architecture to be independent of realities. If a house is built badly, beyond a certain point, it will fall down. But a picture will not fall down from excessive badness—there were certainly some he had once seen in the Belfast Town Hall which had not yet so fallen: in fact he understood the Protestant burghers of Belfast would die in their defence. Almost all the other arts possess a certain liberty or licence which architecture cannot possess. Architecture, for good or evil, was independent of certain extreme waves of fashion which pass over the others and appear to be common to them. The psychologist would trace a process by which a certain spirit goes through the arts as, for instance, when Impressionism was popular in painting so it also was in poetry; to-day we see Futurism possessing a large number of the arts. But one could not exactly have an impressionist building or a building entirely made out of twilight. You cannot have syncopated bricks separated from each other and scattered in the air. Then there was another habit, which it would give rise to considerable controversy to go into, and that was the habit of transposing the terms and arguments and technique of one art to another. Whistler called his pictures after musical terms. The terms of ethics were applied to painting; people talked about the “generous” painting of the umbrella stand and the “just and merciful” colour of the curtains at the back of a room. He did not think people talked of a sym-

phony of chimney pots. There was obviously a certain restraint from the nature of the case. Personally he felt considerable doubts about the whole philosophy on which such comparisons were based. It was the foundation of all free-verse which was paralleled by music. Such theories break down in practise. The writer of “free” verse argues, Why should I not produce moving, inspiring, intoxicating verse by irregular lines without metre? The answer is, “Why not indeed?” But he can’t. He (the speaker) had generally found that the *Verse libre* was not intoxicating but intoxicated. It was questionable whether anyone had carried such principles so extravagantly far in architecture as in others. This fact seemed to indicate a certain general truth. The fallacy of such translations of the technique of one art to another lay in the absence of psychology. The arts can only be said to resemble one another in that each work of art has been produced individually and that it produces a certain effect on us which we describe as beauty. He did not know of any other common factor in the arts. It would be absurd to argue that because the height of a tower is a very impressive thing, therefore a poem will look well if printed high up on the page. Though it implies a similarity of the process of producing that effect when a thrill is produced and the mind is stirred either by a piece of architecture or a piece of music. There was not necessarily any connection. Mr. Chesterton suggested it would be really worth considering whether architects in their experience of their art find there are any general rules to be borrowed from the other arts; or whether it is not a question of understanding their own art and producing out of that certain elements of beauty. As to the general question of these liberties it seemed to Mr. Chesterton that the real object of any art like architecture or of any of the others subject to the invasion of licentiousness is that of finding a place of outlet for such liberty where it cannot destroy itself. It is manifestly impossible to allow anarchy in architecture, for anarchy destroys itself. Houses and churches would tumble down if the spirit of the future called upon the designer to ignore natural laws. It seemed fair to say that it was really Gothic architecture which solved the question of combining liberty and licence to a much greater extent than any other style. One could “play the goat” a good deal in Gothic.

## DISCUSSION.

Mr. W. G. Newton, in proposing a vote of thanks, alluded to Mr. Chesterton’s late arrival by remarking that at one period of the evening there was some danger they might have the play of “Hamlet” without the ghost. But all had turned out well, and a taxi brought the ghost along. Mr. Chesterton had been trying to help them to think about the relation between all the various arts. His main conclusion seemed to have been that the only common ground between the arts was their ultimate impression. The lecturer had argued that the followers of architecture do not suffer from the same dominance of fashion, the same wildnesses, the temptation to “goatiness,” as in the other arts. Though architects cannot build with syncopated bricks, they do sometimes believe that the labourer is not unconnected with syncopated time. In architecture their temptation was the other way about. Instead of being tempted to wildnesses and to outstrip the laws of nature they have to regard and obey the laws of the County Council. Their danger was rather that of paying too much attention to the regulations, and so failing to spread themselves enough. The parallel in Mr. Chesterton’s art would be if all the attention of critics was addressed to the handwriting of the author, the quality of the paper used, the straightness of his lines, and whether it could be read at a glance. Most literary men would fail under that test. The architect’s danger is that he might fall overwhelmed by the various safeguards.

The Provost of St. Mary’s Cathedral, Edinburgh, who seconded the vote of thanks, said that if Mr. Chesterton could do as much for architecture as in the realm of thought the profession would owe a debt of gratitude to



him. He (the Provost) belonged to that class of meek and mild men which is fair game for architects. He was glad to hear the Association had before it the task of raising a considerable sum of money. On the job an architect represented the spending department, while the class he (the Provost) represented had the task of collecting the means to pay for it. Personally, he had met many architects in many varying moods. At their first interview the job was made to appear so simple and straightforward; but by the second time there were complications increasing the cost 50 per cent., though at the same time it was declared to be impossible to draw back. He had often wondered where architects got their data for ventilation from; after sitting in that room for one and a-half hours he had begun to realize the source. They had been longing for that temperature all the winter.

Mr. Robert Atkinson said that Mr. Chesterton had certainly not passed through the A.A. School. If he had, he would know what "goatiness" really meant. There they had from 250 to 300 goats at a time. A student left to himself would erect a building which would fall down before it was put up. Fortunately, the bricklayers and builders know their job.

Mr. Miller inquired of Mr. Chesterton as to what he thought about the new art movements, such as Cubism and Futurism. One could not help thinking there was something at the back stimulating all the unrest which had been going on for some time. It would be interesting to know to what they were leading.

Mr. Chesterton replied he stood alone among literary men of the present day in having no information about the future. There was a large number of people who remember what will happen to-morrow. He certainly believed that behind some of the great men who begin these eccentricities there existed a real impulse, though he was not sure it was always an entirely healthy one. One painter said he was trying to surprise himself. It might be a good thing if a man was bound to prove his ability to paint a reasonable picture before doing a futurist one. Upon the whole these movements were rather a mark of social decadence.

Mr. W. T. Benslyn pointed out that the art of the Middle Ages was rather a romance art. Every mediæval building proved that Gothic achieved that wonderful balance between liberty and order. The people who then carried out that work enjoyed it. Nowadays there was the greatest difficulty in getting the workmen to enjoy their jobs. There must be something vitally wrong which brought that about. If architects can get back such a feeling into their own work, why should they not devise some scheme by which the men should share it?

Mr. Chesterton, in answer to a question as to the sincerity of many of the movements, suggested it would be uncharitable to suppose that posing was necessarily a mark of decadence. But its reception by the public was a test. If a man who was simply playing the fool in a serious manner was very widely received and admired, then it showed that the thing had found a soil suitable. Speaking later of his recent tour in America, Mr. Chesterton said he thought the Gothic churches by Mr. Cram, of Boston, were exceedingly fine. It seemed to him that, curiously enough, they might see a revival of Gothic in America. Pennsylvania Railway Station was an extraordinarily fine thing. American hotels were, almost without exception, hideous and built upon the same plan, and they made one sigh for the beauty, romance, and far-off loveliness of an English pub.

Mr. Gilbert Scott thought that, with the exception of the work of Messrs. Cram & Goodhue, the Gothic in America was extremely bad. The High Church movement in England has produced some of the best modern Gothic in the world. He had never seen anywhere else work to equal that of Bodley and Garner, Sir Gilbert Scott, Walter Tapper, and others. An American architect had said to him: "You Britishers are far more original than we are, but I don't see the use of it." What was most conspicuous about American architects was their extraordinary efficiency. Their work, whether one approved

of it or not, was intensely alive. With regard to the connection between the various arts, the expression of that emotional thrill was really the fundamental purpose of all the artists of the world. Architects must keep a broad view of their building as a whole, and see whether it is going to produce a direct impression. The particular style was not so very important, for when all men are working in the same medium better results are attained than by working separately.

## Competition News.

MR. JOHN W. SIMPSON, P.R.I.B.A., has nominated Mr. G. Gilbert Scott, A.R.A., F.R.I.B.A., as Assessor in the North Wales Heroes' Memorial Competition, Bangor, in conjunction with Lord Plymouth.

THE Departmental Whitley Council of the Ministry of Agriculture and Fisheries has decided to hold a competition, limited to the staff of the Ministry, with a prize of ten guineas, for the best design for a memorial to the thirty-eight members of the staff who died on active service in the war. A jury of four, consisting of Sir Lawrence Weaver, Major M. G. St. J. Maule, Major Maxwell Ayrton, and Major O. P. Milne, will judge the entries. A sum of £200 has been raised by the Ministry's staff, and the selected memorial, which will be of marble, will be placed in the entrance hall of the new offices at 10 Whitehall Place.

## Forthcoming Events.

*Friday, June 3.*—Institution of Sanitary Engineers.—Ordinary General Meeting at Holborn Restaurant, W.C., 11.30 A.M.

*Saturday, June 4.*—Architectural Association.—Visit to Penshurst, Kent. Members to meet at Penshurst Castle at 2.30 P.M.

—Institution of Sanitary Engineers.—Visits to Associated Portland Cement Manufacturers, Ltd., White's Works at Swanscombe, and to L.C.C. Northern Outfall Works at Beckton.

*Monday, June 6.*—Royal Institute of British Architects.—Special General Meeting and Business Meeting at 9 Conduit Street, W. 8 P.M.

*Tuesday, June 7.*—Royal Institute of British Architects.—Informal Meeting at 9 Conduit Street, W., of Associates summoned by the President to discuss the steps towards the Unification of the Profession. 4.30 P.M.

*Thursday, June 9.*—Royal Institute of British Architects.—Public Lecture at 9 Conduit Street, W., by Mr. H. S. Goodhart-Rendel, entitled "Some Fashions in Architecture." 5 P.M.

—Royal Sanitary Institute.—Sessional Meeting at the Guildhall, Gloucester. Discussion to be opened by Dr. J. Middleton Martin, B.A., M.D., D.P.H., on "Public Health Development in Gloucestershire." 10 A.M.

*Friday, June 10.*—Royal Sanitary Institute.—Sessional Meeting (second day) at the Guildhall, Gloucester. Discussion to be opened by Major E. W. A. Carter, O.B.E., M.I.M.C.E., on "The Collection and Disposal of House Refuse." 10 A.M.

MR. CECIL GEORGE STILLMAN, M.S.A., has been appointed by the Hampshire County Council as assistant county architect. He received his early training with Mr. W. H. Bell, of Reading, and when the war broke out joined up in the autumn of 1914 with the Royal Engineers. He was awarded the Military Medal for special services at High Wood, and afterwards, when he gained his commission, was mentioned in despatches.

THE members of the Northern Architectural Association visited the Empire Theatre, Newgate Street, Newcastle, on Saturday. The President (Mr. T. R. Milburn, of Sunderland) gave an address on the stage, and described the general construction and working of the fire curtain, cloths, and other accessories of a modern theatre stage. Among those present were Mr. J. T. Cackett, Mr. W. Milburn, Mr. W. R. Plummer (Tynemouth), and Mr. Burns Dick.

On and after Monday, May 30, the library and the students' room of the Department of Engraving, Illustration, and Design (Room 71) of the Victoria and Albert Museum will close on Mondays, Thursdays, and Saturdays at 9 P.M. instead of 10 P.M. On Sundays the Museum will be open until 6 P.M. instead of 5.30 P.M., as at present; the closing bell will ring at 5.50 P.M. The hour of closing on week days will remain as at present—5 P.M.



## Post-War Churches.

THE fourth of the series of public lectures being given on Thursday afternoons at the premises of the R.I.B.A. was by Sir Charles Nicholson, Bart, M.A., F.R.I.B.A., who said that the most difficult problem which the post-war builder of churches has to solve arises from the abnormal cost of building. Not that this has been inflated in much greater proportion than the price of other commodities, except in a few districts like Yorkshire. Still, in spite of the various hindrances to the restoration of normal conditions, there is no doubt that the law of supply and demand will in time assert itself, always provided it is allowed to operate without State interference. Even in the most favourable event, however, he thought we are unlikely to see building prices come down to pre-war figures measured in terms of £ s. d. They must eventually stabilise at new rates determined by the general purchasing power of money. The present condition of things is heartbreaking to those who have painfully collected sums of money for church building, which are quite inadequate for the purpose. It is not altogether seemly that a nation which can afford a 6s. income tax, a duty of £1 per horse-power upon motor-cars, a salary of £5,000 a year to a Minister without Portfolio, and free railway passes to Members of Parliament should go churchless on account of its poverty. Nor is it fair or honest, if one has to retrench, to pay for one's new boots out of the missionary box. There is no need to lose courage if one considers what our forefathers were able to accomplish in days when England was a far poorer country than it is now.

The temptation that besets the post-war church-builder is a very obvious one. The economic difficulties have provided an atmosphere in which the ingenious and plausible quack may flourish exceedingly. What is more natural than that the worried parson who has to get a church built somehow should at times listen to the blandishments of the tempter who suggests that a very good church can be put up of Tee iron studs filled in with his patent blocks, roofed with his own patent tiles, carried upon specially designed light steel trusses, and lined with his special sheeting, which can be treated exactly to resemble oak, mahogany, alabaster, marble, mosaic, glazed brick, or other desired material? These temptations have not, as a rule, been succumbed to so far as church-building is concerned. But there seems every prospect of a number of our villages and growing towns being provided in a short time with parochial halls built after the fashion of a third-class cinema—possessions which are likely to ensure a costly burden by way of upkeep and repairs upon the next generation of their custodians.

The prevailing superstition that the use of reinforced concrete will solve all difficulties as to cost is a most difficult one to combat. The necessity for adequate solidity in a permanent building is equally hard to inculcate.

The way to overcome the present set of difficulties is, in the opinion of Sir Charles, twofold. In the first place, employers must learn to understand that the cost of building has to be measured by the real value of money, not by its face value. Further, they may very well imitate the pluck and unselfishness of their forefathers, who, though not neglectful of material enjoyments, yet gave generously for the purposes of the church and the welfare of their poorer fellow-countrymen. In the second place, the architect must study real economy in his work. Economy does not, of course, mean mere cheapness; still less does it mean cheapness at the cost of permanence or dignity. Nowadays, as in the past, economy means the art of using just the right amount of one's resources, no more and no less, to produce what is required. If one accepts this definition, one may go on to define the art of architecture as the art of building economically. But such a definition ought not to be allowed to mislead people into imagining that anything can be economy unless the desired results are efficiently obtained. The varied objects

of the Egyptian, Greek, and Roman builders were efficiently accomplished, and the builders themselves were therefore good economists and masters of their art. But in these days we have to face new problems, and the architect's duty now is, except in a few cases, to produce useful buildings rather than to attain to abstract ideals like eternal permanence, perfect beauty, or magnificence. Although the purpose for which churches are used are more noble and less material than those for which civic and domestic buildings are required, a modern church has to conform to such a number of practical considerations that it may quite properly be criticised according to the degree in which it fulfils practical requirements. Thus it must be sufficiently spacious, reasonably durable, convenient both for clergy and people, and last, but not the least, it must possess that dignity which is demanded by its sacred character. Now of all these qualities the last is the most essential element in church-building, and if this quality is lost or sacrificed the building can only be pronounced an absolute failure. Any attempt to build a church without due regard to these cardinal requirements is bad economy, because a mere makeshift is produced. But the architect who knows his business can get more out of a £5 note than the man who is less skilful or less careful than he.

In what directions, then, is it possible for the post-war architect to build in that economic fashion which distinguishes a master's work from that of a mere dilettante? Sir Charles Nicholson believes that perhaps the best answer is to be found in an intelligent examination of the works of our own forefathers. The conditions set before the mediæval builders more nearly correspond to those of our own time than the conditions which produced the architecture of the ancient and classical world. The mediæval churches were utilitarian in the same degree as our own should be to-day—the means at the disposition of the mediæval builders were often much less generous than those which are at our command.

Three great characteristics of the mediæval builders' work were enumerated by the lecturer as being ones which the modern architect will do well to imitate if he wishes to build with true economy.

The first of these is a thoroughly practical knowledge of materials and the uses to which they can be applied. The mediæval builders almost invariably used local materials, with certain exceptions in the case of work of the first importance. They treated their work quite differently according to the materials at their disposal. The freestone buildings differ radically in character from the rubble or brick buildings; the timber constructions are honest carpentry and do not emulate the forms of masonry, though in the case of each material used one may trace a certain hall-mark of architectural style which marks the period at which the work was done.

The second great virtue of the mediæval builders was a knowledge of construction from the engineering standpoint. No school of builders ever knew better than they how to utilise the full strength of every stone and every beam. They seldom wasted their resources. The nave of Lincoln Minster is a structural masterpiece, only surpassed by such miracles as the church of St. Urban at Troyes or Henry VII.'s chapel at Westminster.

The other economic virtue of the mediæval builders was their thoroughness in business. If one studies some of the old accounts which have survived one cannot fail to be struck by the care with which they were kept and the practical manner in which the materials and plant were obtained and prepared for use. The careful control of small details is an essential condition of economy in building as it is in other transactions.

To apply the example set by our fathers to our own case, the architect should in the first place choose his materials wisely and study carefully what materials can be most economically used and what will best answer their purpose in the locality and under the conditions in which he has to build. Secondly, he should use sufficient engineering skill to avoid wasteful construction. It is not meant that he should build in a rash or daring manner, or that for the sake of cheapness or cleverness



he should only use just enough material to prevent his building collapsing. But it is not too much to demand that he should make sure every brick and every beam which he puts in will help to make that building stronger or more convenient or more beautiful than it would otherwise have been. Thirdly, in the matter of attention to details it is essential that these should be thoroughly thought out. In this respect it is remarkable how much a little practical experience of craftsmanship will help an architect to avoid waste of material and waste of labour.

Sir Charles gave it as his opinion that the most economical style to build in is one based upon late English Gothic, and that the old-fashioned and well-tried methods of construction, if used with intelligence, are more economical than the various substitutes. After the ground has been cleared to the extent of convincing the employer that it is a waste of time to chase wild geese, the architect is still against the hard fact that the available funds are only about a third of what is wanted to carry out the contemplated work. It must then be decided whether it is wise to wait, upon the chance of conditions becoming more favourable in a year or two. The lecturer's own feeling was that the wiser policy is, as a general rule, "to get as much as you can of what you want when you can," and not to trust to luck and perhaps only put off the evil day by doing so. His counsel would be to settle the plan of the church and to build a fragment of it well, adding, if necessary, temporary accommodation of the simplest and cheapest possible description. It is worth careful consideration whether the materials used in the temporary work can be eventually re-used in the permanent construction. Temporary buildings need not be hideous, provided they make no attempt at ornamentation. Very often such buildings would be cheaper and less unsightly than they are if their roofs were supported by a few rough posts instead of being framed in wide unbroken spans. Neither is it necessary that they should invariably be lined with varnished matchboarding: unplanned boards left from the saw look much better and are cheaper. If it is necessary to have a temporary building, it may very well have low brick walls (whitewashed inside), standard iron casements, and an unwrought timber roof carried on posts where necessary and covered with iron or some similar utilitarian material. The cost of guttering may be saved by making the eaves overhang well, and the result will certainly be more pleasing than the smug shoddiness of the ordinary temporary church with which one is familiar.

With regard to the design of permanent churches, if one has economy in view, one must aim at effects which can be produced without extravagant construction. Fortunately the dignity of a building depends more upon good proportion than upon mere size or richness of ornament or costliness of material. It is wise to avoid large wide, unbroken spans of roofing, for with the latter it is necessary to make a building very lofty in order to obtain satisfactory proportions, and it is obvious that a lofty church is much more costly than one of moderate height—not only does it require higher walls, but it also requires thicker ones. An appearance of height is, of course, essential to a satisfactory church, but this can be obtained by judicious arrangements in buildings of quite modest dimensions and cost. In spite of the quaint superstition to the effect that pillars inside churches are an invention of the evil one, devised in order to prevent people hearing sermons, it is a fact that a building which is cut up with pillars is very often far easier to speak in than one which is not so arranged. In a very wide building which is also sufficiently lofty to possess the dignity of proportion necessary in a satisfactory church interior, the effort of speaking is very trying. Moreover, such buildings have an impish habit of developing all sorts of echoes, which it is most difficult to cure. Nor should it be forgotten that a large unbroken area containing as many empty chairs as full ones is a somewhat depressing spectacle. If the size of the congregation is likely to vary, it seems that the church with aisles has a distinct advantage over the other type, quite apart from the fact that it is more economical, and that it looks larger than it actually is.

## Professorship and Public Recognition.

By H. Bartle Cox, A.R.I.B.A., of Paris.

WE architects often complain of public indifference, the remedy, however, lies in our own education. Civic pride exists but architects do not effectively solicit the co-operation of administrative bodies. In France, the profession has more public recognition because of its more logically conceived organisation for the training of architects.

In education as in commerce "centralisation" is irresistible. It has many drawbacks, yet remains the best of all imperfect systems. Regional architecture, with all its petty charms, was merely the happy result of costly transport. It is now doomed to uniformity and improvement. It is playing second fiddle because the local masters are unfortunately, at present, not up to the required standard. When a sufficient number of professors are sufficiently well equipped with educational rather than practising qualifications, then the localities may again be in the position to develop something worthy of the locality.

French architectural education is more a matter of encouraging personal effort rather than the imposing of individual opinion. The *Ecole des Beaux Arts* is not a teaching institution in the English sense. It is a "Centralisation" of the schools (*ateliers*). Its characteristics being: Co-operation among students, representation for judging, solicitation of the public. For this, the results, whether good or bad, are necessarily more "National" than in any other country. Advocates of British Nationalism in architecture could not do better than study the organisation of the *Ecole des Beaux Arts*. If a similar thoroughness is impossible without a Ministry of Fine Arts we can at least inspire from its methods of education. A progressive series of "Programmes" (subjects) are proposed by a man who has made a special study, not so much of the subject in question, as of the method and object of setting the subject. The different "Ateliers" (schools) all send in "Projets" (designs) for the same programme, whether elementary or advanced. The projets are publicly exhibited in order of merit after being judged by a large representative jury, and awards made accordingly. The student's place in the "Concours" (competition) is a great lesson. This method has its shortcomings and outshines all others. The Guilds are gone, and the pupilage system, the best so long as there was nothing better, bids fair to be discredited as a premium stunt. Parents and the public have reason to support the colleges and culture.

At the *Ecole des Beaux Arts* the professor entrusted with the setting of programmes is called the Professor of the "Theory" of Architecture. This responsible position is now held by Monsieur Victor A. Blavette, Grand Prix de Rome (1879), architect to the Louvre. He succeeded Julien Guadet, practising architect of equal reputation and the much esteemed author of the most excellent: *Eléments et Théorie de l'Architecture* (Cours professé à l'Ecole Nationale et Spéciale des Beaux Arts). An invaluable work of the greatest importance to all modern architectural students of no matter what nationality. Undoubtedly the best educational treatise on our subject in any language.

The French have the advantage of a tradition that architectural education is a science in itself not picked up in offices nor necessarily understood by brilliant students. A well known practising architect may not, by temperament, be suitable to organise educational courses. It is a branch apart. However, the theory of the "Ecole" is to turn out practical men. Universities should therefore demand something more than mere teachers liable to lapse into prosy pedagogues.

From serious technical conversations with Monsieur Blavette and with Monsieur Jules Godefroy (member of the Council at the *Ecole des Beaux Arts*), who are in no way responsible for this message, I gathered the



**CONCRETE BLOCKS "KING" PLASTER SLABS**

**WALLS PARTITIONS ROOFS**

**FIBROUS PLASTER CEILING SLABS**

*Ferro-Concrete and Glass Constructions*

**"FERRO GLASS" PAVEMENT LIGHTS**

**"KING" CONCRETE GLAZING BARS**

**J. A. KING & Co.**

**181, QUEEN VICTORIA ST., LONDON, E.C., and  
BRITANNIA BUILDINGS, LEEDS.**

Tel: City 2213 and Cent. 773, and Leeds 22712.

## Save nearly 4000 Bricks

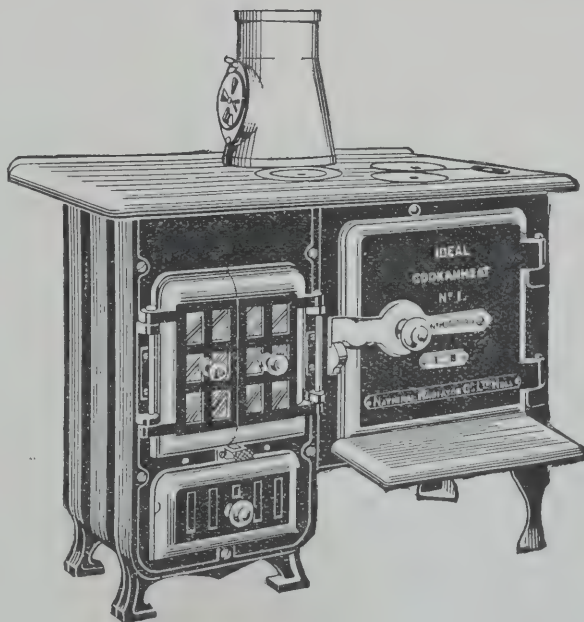
in every six-room brick cottage by omitting chimneys rarely if ever used! *Five cottages instead of four* can then be erected with the same amount of brickwork, yet greater room area obtained in each without extra cost. An

**IDEAL  
COOKANHEAT**

in conjunction with "Ideal" Radiators requires only one chimney flue and no brick-setting—provides *warmth for three or four rooms*, ample Cooking and Hot Water Supply facilities—saves the cost of grates, overmantels, tile-hearths, etc.

Rooms fitted with "Ideal" Radiators are thoroughly warmed all over without smoke, soot, ashes or dust.

Fuel consumption: 3 to 4 lbs. of coal per hour, increasing to 6 lbs. when the oven is in use.



Write for Pamphlet C22. Inspect working installations in our Showrooms.

**NATIONAL RADIATOR COMPANY**  
LIMITED.

Offices, Showrooms & Works: HULL, Yorks.

Telephone: Central 4220. Telegrams: "Radiators, Hull."

London Showrooms: 439 & 441 Oxford Street, W.1.

Telephone: Mayfair 2153. Telegrams: "Liableness, London."

Agents in Great Britain carrying stocks of "Ideal" Radiators" and "Ideal" Boilers:

Baxendale & Co. Ltd., Miller Street Works, Manchester.

William Macleod & Co., 60-64 Robertson Street, Glasgow.



following helpful conclusions with reference to the drawing up of programmes:—

1. In principle, they should be mainly theoretical.
2. They should aim at developing artistic imagination.
3. Their object is to train architects rather than contractors.

Nevertheless, architectural education has to be adapted to at least three categories of students: Elementary, intermediate, advanced. All must pass through the elementary stage, a few become advanced.

Programmes for elementary students should tend to educate them, irrespective of practice, in the first principles of composition (plan, section, elevation, considered together), the use of the orders, in the appreciation of proportion and the rendering of effect. Scientific construction can scarcely yet be expected. Students' imagination should not be hampered by petty considerations of a commonplace nature. The aim in this category is essentially artistic and theoretical.

Advanced students are supposed to have some practical experience, to have worked in offices, to have studied stereotomy and other building sciences, besides to have submitted solutions for some of the special programmes dealing exclusively with construction. They are then in a position to tackle in a practical way programmes of a nature calculated to stimulate the higher faculties for big decorative schemes. This class of programme is again more particularly of a theoretical nature, and the student should be left the greatest freedom in the choice of style. Special programmes are set with a direct archaeological aim preparing them for restoration work. Here let it be remarked that the "Ecole" stands for scholarly modern interpretation of traditional principles. That it encourages style or character but not the imitation of styles. In this way a national modern style is constantly in process of development.

The majority of students, especially since the war, cannot afford the time and money necessary for a complete education leading up to the Grand Prix de Rome, and most prefer practice to perfection. The intermediate class is therefore the most numerous, for the bulk have to leave when in the second class (or after having done one or two first class projets) in order to make a position in life. Programmes for this category must therefore be more practical, more scientific, and more adapted to the commonplace requirements of everyday life. The catering for this class is a necessity, but somewhat upsets the principle of the progressive theory of the Ecole training leading up to the "diploma," yet it is every day gaining more and more ground. However, the important point still remains that the professor responsible for setting the programmes must know how to word them so as to bring out artistic interpretations of practical problems.

The whole question of architectural education lies in the drawing up of programmes.

The professor is himself expected to have a clear idea of the solution of the subject proposed. He should be sure of the possibility of the imagined scheme. While leaving great liberty to the student he should suggest the artistic character of the building and hint at the required accommodation, avoiding ridiculous dimensions.

In judging the results submitted care is taken to award according to the aim of the programme. If the projet is a "Rendu" (careful study) it must be effectively rendered. If a "Projet de Construction," it must be scientifically worked out; but, if the problem is one of setting down rapidly executed imaginative ideas for a vast composition, the projets submitted will not be judged from a prosy practical point of view.

We English pride ourselves on being practical, but that rather smacks of laziness or the love of five per cent. before fine architecture. The practical fellow has been termed: "A man with one eye and a bag of tools." Napoleon said, "It is imagination which rules the human race."

In architecture as in military tactics we can profitably inspire from our friends across the Channel. In this

connection it is instructive to read Monsieur Godefroy's article in the "Bulletin de la Société des Architectes Diplômés par le Gouvernement" for May 1, 1921, entitled "Une Heureuse Initiative." He points out that the Professor of Theory recently set for the advanced students an "Esquisse-Esquisse" (comprehensive rough draft design) for an "Ecole Normale d'Education physique," and that the Minister for War asked the director of the "Ecole" to inform him of the "projets" placed first. Upon which the sub-director suggested that any officers interested in the competition should visit the exhibition when a delegation of the jury would explain to them the reasons which brought about the placing in the order of merit. Twenty-five officers, mostly ranking as colonels, turned up. They were literally astounded to see what the students were able to do in a single day of twelve hours without preliminary study of the subject.

General Pénelon said that in the future when it is a question for a building of a military nature an appeal should be made for the ideas of the students. M. Godefroy suggests that other ministries should be approached in the same way.

The article gives a practical proposal for increasing our prestige in the public eye.

The uninitiated are amazed at seeing what well-trained students can do (overnight so to speak) in the matter of composing a huge scheme, provided the programme is previously well drawn up. In actual practice the drafting of the programme is done by the architect himself after much collaboration with the client.

The "Esquisse-Esquisse" is particularly French in method and generally perplexes foreigners. It is decidedly practical yet essentially theoretical, and in itself must be regarded only as a form of study. If some brilliant but lazy students tend to rest on their oars content with dazzling the eyes of the laymen that is no criterion for not developing this faculty so much esteemed by all serious students as a necessity.

What better method could be devised for the training of Rapidity in Composition? Not enough in itself, but a preliminary acquirement of necessity to the purist and a very practical accomplishment for the business-like artist. The most useful asset for impressing clients.

Is this skilful brilliancy widespread among our British students? If not, suggestions for the developing of this particular facility of expression should not be taken amiss. It would certainly do much to dissipate the superstitution of public indifference.

The great principle of the Ecole training is the "setting and reading" of programmes, the most logically organised method in the world. The student learns not to make a station look like an hotel, and the professor learns not to ask for an hotel if he wants a station.

The mere reading of a series of programmes proposed for students at the Ecole des Beaux Arts is an education in itself. As an instance, a monument might, in appearance, be either funereal or triumphal or both, but to merely ask for a monument to the dead is to leave the student in the dark as to how it will be judged; besides, the reading of the programme is of no artistic value. This method of education is an artistic science in itself worthy of our deepest consideration, and for this I would suggest for the benefit of British architecture:—

1. A greater "centralisation" of our teaching bodies.
2. The nomination of a "Professor of Theory."
3. A representative jury of all the leading professors.

This extension of our efforts would lead to more vigorous and to more "national" results.

The "professor," a practising architect who has made a special study of this particular form of instruction, should know in detail the usual stock-in-trade of commemorative monuments, town halls, theatres, museums, &c., and of town planning, but, for modern purposes, as even he cannot be expected to be familiar with every kind of building from slaughter-houses to libraries and synagogues to lunatic asylums, it is his concern (more than the students') to find them out before



# REDPATH BROWN & CO., LTD. CONSTRUCTIONAL ENGINEERS

## WORKS AND STOCKYARDS

LONDON.  
Riverside Works,  
East Greenwich SE.

MANCHESTER.  
Trafford Park.

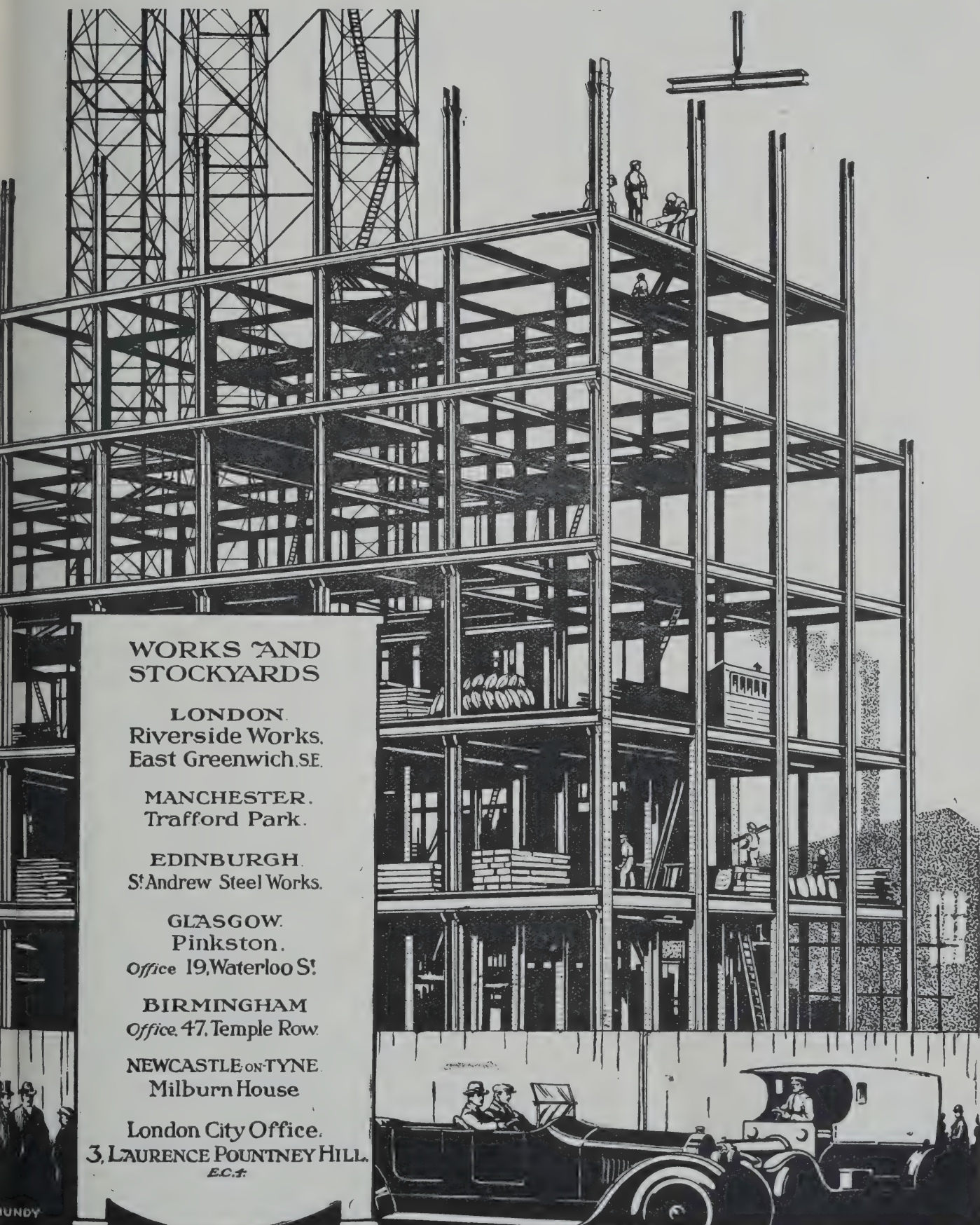
EDINBURGH.  
St Andrew Steel Works.

GLASGOW.  
Pinkston.  
Office 19, Waterloo St.

BIRMINGHAM  
Office 47, Temple Row.

NEWCASTLE-ON-TYNE.  
Milburn House

London City Office.  
3, LAURENCE POUNTNEY HILL.  
*E.C.4.*





setting the subject. For this he has a civic right to request information from administrative bodies, private companies, corporations, associations, etc. The British authorities, if courteously approached, are no less obliging than the French. Thus drawn up, the "programmes" would be valuable documents to architects, and the students' "Projets" valuable suggestions to the public. The authorities not being slow at recognising their own interests encouragement would follow, and our efforts less isolated, would become better known and more effectively patronised, public indifference would vanish, and the status of the profession would thereby be enhanced.

## Royal Institute of British Architects.

A COUNCIL meeting of the R.I.B.A. was held on May 23, and from its minutes we give the following notes:—

*The Scale of Fees for Housing Schemes.*—The draft agreement with the Ministry of Health was approved and a vote of thanks was passed in favour of Mr. James S. Gibson and the other members of the deputation.

*Report of the Unification and Registration Committee.*—The resolutions passed by the Unification and Registration Committee on May 12 were approved, and a Sub-Committee was appointed to enter into negotiation with the Council of the Society of Architects.

*Competitions.*—The following competitions were vetoed: Hagley War Memorial Competition; Salisbury War Memorial Competition.

*Grants.*—The following annual grants were made: Architectural Association, ordinary grant, £100; second instalment of grant of £500 to Endowment Fund, £125; Architects' Benevolent Society, £100; Atmospheric Corrosion Research, £10.

*Report of the Official Architecture Committee.*—The Committee's Report was approved, and ordered to be printed in the *Journal*.

*The Industrial Council for the Building Industry.*—Mr. James S. Gibson was appointed to represent the architectural profession on the Administrative Committee of the Industrial Council.

## Correspondence.

### Industrial Paralysis.

To the Editor of THE ARCHITECT.

SIR,—Lord Inchcape's letter to the Press on the subject of the country's serious industrial position, due to inability of the people to grasp the needs of the situation, makes it necessary for all classes to consider seriously the future of this country.

The sole object of the Reconstruction Society, irrespective of political views, is to work towards the regeneration of British prosperity, and the Committee have come to the conclusion that one of the means to this end is the education and enlightenment of all sections of the community. We are, therefore, prepared to offer to manufacturers and the managers of industrial organisations, societies, clubs, brotherhoods, &c., the services of specially trained speakers, at places and times to be arranged between us, to explain the problems of the industrial situation in an endeavour to indicate the way out.

Permit me to emphasise the point that there is no desire whatever to make political capital out of any section, party, or faction. The idea is merely to present for careful consideration hard and irrefutable facts calculated to influence all to strive together for the public weal.—Yours, &c.,

C. H. DANT,  
Secretary.

The Reconstruction Society,  
58-60 Victoria Street, London, S.W. 1.  
May 28, 1921.

THE almshouses of the Butchers' Charitable Institution, which have existed at Walham Green for close on eighty years, are to be taken down, and other cottages are to be built at Hounslow.

RUGBY Urban Council have decided to accept the tender of Messrs. Moss, Loughborough, for the erection of 198 houses on the Eastlands estate at a cost of £172,958. It was stated that the tender showed a considerable reduction in price compared with the cost of the houses now in course of erection.

## General.

THE National Union of Operative Heating and Domestic Engineers, Approved Society No. 388, has decided to pay increased benefits as from July 4, 1921, as follows: Sickness benefit, 19s. per week; disablement benefit, 9s. 6d. per week; maternity benefit, £2 8s. per week.

THE Selly Hill Parish Church, Birmingham, is to be extended so as to provide about 150 additional sittings. The scheme, which includes a new vestry, is estimated to cost £7,000, and towards this a sum of £1,000 has been received. A further £1,000 is expected to be raised shortly, and the work will then be commenced.

THE new wages scale proposed by the National Wages Council for the building industry has been accepted, the official voting figures being: In favour, 26,289; against, 16,112; majority for acceptance, 10,177. The result of the ballot on the use of funds for political objects is: In favour, 28,535; against, 17,863.

THE population of Bolton-upon-Deane has increased so rapidly that the Council have again had to consider the extension of their sewerage and sewage-disposal scheme. At the recent Minister of Health's Inquiry the Council's proposals were explained by their consulting engineers, Messrs. W. H. Radford & Son, of Nottingham. The scheme includes a new gravitation sewer and extensions to the disposal works.

At the last meeting of the Redditch Urban Council it was decided to accept tenders from Messrs. J. & A. Brazier, of Bromsgrove, for the erection of thirty-two type A non-parlour houses (hipped) at £704 10s., and plain type at £701 15s., and also the tenders of Messrs. Mills Brothers, Redditch, for six type B parlour houses at £825 (hipped), and the same amount for the plain type.

A CRICKET match is being arranged between teams representing the Society of Architects and the Architectural Association, at Elstree on Friday, June 17, play commencing at 11 A.M. and ceasing at 6.30 P.M. Motor conveyances for players and spectators will leave the Architectural Association (34 Bedford Square, W.C. 1) at 10 A.M. on the morning of the match. Lunch and tea will be provided in the pavilion. The cost to players and spectators will not exceed 10s. per head, including return fares, luncheon, and tea. Members, whether players or otherwise, may bring their friends, and it is hoped that ladies will be present.

THE Great West Road, now being constructed by the Middlesex County Council, was designed, and has so far been built, of a uniform width of 80 feet. In view of the importance of this arterial road, and of the fact that other such roads are now being made much wider, the Ministry of Transport was asked that its width should be increased to 120 feet, and at a meeting of the County Council last week the Ministry's approval was received. The extra cost involved is £71,000, of which the County Council will provide £17,750 and the Ministry £53,250. It was further agreed to extend the Cambridge arterial road in the district of Tottenham, from Lordship Lane to Downhills Road, at a cost of £45,490, subject to the Ministry of Transport's contributing 50 per cent. of the cost.

At the monthly meeting of the Incorporated Church Building Society, held at 7 Dean's Yard, Westminster, on Thursday, May 26, the Hon. Sir E. P. Thesiger, K.C.B., in the chair, grants were made towards repairing the churches at Brompton, Holy Trinity, Kent, £125; North Marston, St. Mary, Bucks, £105; Portland, St. John, Dorset, £50; and Spreyton, St. John, Devon, £20; and towards building a new church at Unstone, St. Mary, near Sheffield, £105. £1,223 was also paid towards small repairs to fifty-five other churches. The monthly meeting was followed by the Annual General Court, at which the following gentlemen were elected to fill the vacancies on the Committee: The Rev. Maurice Child, F.R.G.S., and Sir Leicester Harmsworth, Bart., M.P.

THE Minister of Health announces: In view of the inquiries that have been received at the Ministry of Health recently, it is of interest that Lord Newton's Committee, who are inquiring into the present state of the law with regard to the pollution of the air by smoke and other noxious vapours, have nearly finished taking evidence and are considering their Final Report. The Committee were originally appointed in 1914, but owing to war their operations were suspended until January of last year. The Committee have examined a large number of witnesses and much valuable work has been accomplished. An interim Report was issued in June of 1920, recommending various smokeless methods of domestic heating, having special regard to the new houses being built under the Government housing scheme. In consequence of this Report a Memorandum was sent to all local authorities by the Ministry of Health drawing attention to the Committee's recommendations.



## CONTENTS.

The Present Chaos . . . . .	PAGE 397	Rome Scholarship in Architecture . . . . .	PAGE 402
Illustrations . . . . .	398	"The Architect" Fifty Years Ago . . . . .	402
Notes and Comments . . . . .	398	Rebuilding Valparaiso and San Francisco: A Contrast . . . . .	403
Royal Institute of British Architects . . . . .	399	The late Sir Rowand Anderson . . . . .	404
Forthcoming Events . . . . .	399	The Institution of Sanitary Engineers . . . . .	405
London Art Galleries . . . . .	400	Why Houses are Scarce and Dear . . . . .	405
Art News of To-day . . . . .	400	Standardisation in American House Construction . . . . .	406
Building a House . . . . .	401	Competition News: General: Housing News: Trade Notes . . . . .	410

## The Present Chaos.

THE present position of national chaos is clearly attributable to two causes, which are dealt with in a book written by Lord Rothermere, entitled "Solvency or Downfall,"\* and forms a re-publication of a series of newspaper articles which might have been brought up to date by the inclusion of reference to the culminating misfortune of the present coal strike.

With most of the conclusions of the writer we are in agreement, and some of them might be stated even more strongly. The two great mistakes which have led up to our misfortunes are, as Lord Rothermere states, the failure of those in authority to understand that the colossal expenditure of war time cannot be continued in times of peace, and the inability of Labour to recognise that only by increased effort and production can it hope to produce a betterment of conditions. The slackness, insincerity or stupidity of politicians has made our governmental policy socialistically anti-national, while it has consistently imposed heavy burdens on the taxpayer and spent the resources of the country on objects which evoke no enthusiasm among any section of the people.

Formerly, if we spent money in the administration of a foreign country we at least obtained some advantage from it; now we are indirectly promoting trouble for ourselves in Egypt and India, while at the same time we make concession after concession to our avowed enemies. More than this, our Government has a perfect avidity for accepting "mandates" from the League of Nations for the philanthropic administration of countries like Palestine and Mesopotamia, which cost us heavy sums, without compensating advantages, at a time when everyone is burdened with excessive taxation. We, therefore, quite agree that the time has come to eliminate foreign adventures, but which the public conscience or public apathy determine shall not be of commercial advantage to us, and to cut down our armed forces to a minimum. We agree with Lord Rothermere that the new Education Act is, at any rate, a mistake in the present time, and that the absurd housing policy of the Government should be ended. We have not the means to subsidise colliers, railway men, or people who want cheap houses; and the greatest necessity of the time is the reduction of bureaucracy to its smallest limits. It will probably take years to do away with the pernicious belief that politicians have fostered in the minds of the people that by legislation we can interfere with advantage between employer and employed, for in the end such attempts come down to demands on the taxpayer for the benefit of small sections of the community who make claims for doles in continuous recession.

We agree with Lord Rothermere that the whole Housing Policy of our Governments has been wrong

since they first interfered with private enterprise by the Finance Act of 1909, but we differ in degree from him in urging that the subsidy to private builders should be ended. In saying this we only differ from Lord Rothermere in detail, for if the subsidy had been proposed by itself we should have denounced it, as he does, as being mischievous. The position is that we have largely produced the shortage of which complaints are made by wholesale interference with private enterprise, and have done a great deal to kill what we may call a key industry—private building speculation, which was essential to the welfare of our people. Now, while it would be mischievous to sustain people who are able-bodied, we all recognise that the sick or infirm should be cared for. The speculative builder and speculator is in the latter position to-day, and his sufferings having been caused by Government, the latter is surely bound to do something for him till he is in a state of health again. And that something is expressed by giving him a subsidy with which to resume his occupation with some chance of success. The average house carried out under a Government housing scheme will cost the taxpayer anything from £40 to £70 in perpetuity, while the subsidy to a private house builder represents about four annual payments on the loss on municipal housing. In the one case, we have a class of property created which means a constant charge on the public purse, and permanently discourages building by the competition of an artificially low rent; in the other, we produce a class of property which will be economically rented from the outset, and will encourage further building. The first class of housing, therefore, continues to be a permanent charge on the income-tax payer, while the second helps to bring in revenue to the Exchequer in the form of income tax. The sum allotted for the second purpose is, in its entirety, only half as much again as the subsidy offered to the mining industry, perhaps as a permissible expedient, but equally one that can be defended on no intrinsic grounds—the one is offered to a penalised class, the other to a body of men who have held the State up to ransom. We have little doubt that the result of the new "housing census" which Sir Alfred Mond is going to institute will be to show that the results of Dr. Addison's "census" were incorrect, and that the shortage of housing is nothing like as great as was stated; but whether this be so or not, we believe that State housing should come to an immediate end, because its provision is unfair to the taxpayer, while it defeats its own object by rendering private housing speculation unremunerative. No one can afford to build for the working classes if he is likely to have in the immediate neighbourhood houses built at a cost of £1,000 apiece and let at rents of 10s. 6d., 12s. 6d., or 14s. 6d. a week. Therefore, in the interests of national economy, if we have by promises and pledges made the provision of housing by State aid essential, let us carry it out by subsidising private

\* "Solvency or Downfall," by Lord Rothermere. Longmans Green & Co. 2s. net.



speculation at one-quarter the cost to the State of municipal housing. The end of the interference of the State with private enterprise may fairly be reached by the extension of subsidies which stimulate private enterprise, and the elimination of State and municipal schemes, which check it. If it be argued that many of the houses so built are occupied by middle-class people, and not by the working classes, it is fair to point out that there is frequently no disparity between the earnings of the hardly pressed middle classes and the so-called "workers," while the small area permitted under the subsidy regulations practically eliminates the "luxury cottage." We should not object to see a more precise definition of the accommodation which may be provided under the regulation, or a general limitation of cost, or any other test which would check the probability of an evasion of the intention of the measure. But we believe that all those who desire to make use of the subsidy should be free to do so, of whatever class they may belong, if, because we are told, the building of small houses is desirable. The subsidy might well also be made on a sliding scale. If we assume 1,200 or 1,300 super. feet as the right area for a working man's house, let it

qualify for the fullest amount, which might be graduated above and below such a datum line until it automatically disappeared.

And if, as we are told, building is held up for want of bricklayers and plasterers, is it not absurd to penalise those who would build entirely in wood by giving them a lower subsidy? We know that wooden houses may last for several hundred years if properly built, and their construction will automatically cheapen brickwork by lessening the demand—a reason which makes the grant of a smaller subsidy in the case of timber construction inexpedient.

We have alluded at length to the subject of housing, because, though included as one of the smaller counts in Lord Rothermere's indictment, it is a matter to which our attention has been most prominently directed. The mistakes made by over-interference, over-regulation, and slack production are common to every trade; and industry in the country is suffering from evils which must be eliminated if we are to escape the "Downfall" which Lord Rothermere truly says must come unless we can maintain by thrift and economy the solvency of the State.

### Illustrations.

NEW CHURCH, WILLIAN, HERTS. Royal Academy Exhibition, 1921. A. HERON RYAN TENISON, Architect.  
 "BUILDINGS OLD AND NEW" AND "BRIDGE BUILDERS." By LESLIE MANSFIELD.  
 HEATHERDEN HALL, IVER HEATH. MELVILLE SETH WARD, F.R.I.B.A.

### Notes and Comments.

#### Unification and Registration.

ON June 7 about 150 Associates assembled at the R.I.B.A. in answer to the President's invitation. Mr. Simpson may be congratulated on the very hearty response made by the Associates, whose presence and speeches plainly showed their appreciation of the vital issues, which are now hanging in the balance. The meeting was in every way an undoubted success; and those supporters of "Scheme A," who feared that the work of the last eighteen months would be nullified by the opposition of Associate Members of the Institute, may rest assured that the general tone of the meeting, if not unanimous, was vastly in favour of setting up machinery which would open the portals of the R.I.B.A. It was apparent that the spirit of sacrifice was abroad, and that the Associates had not lost sight of the high ideals of the profession, and were willing to sink, in part, their own identities when the future progress of Architecture was at stake. Hence, in general terms, it may be said that the beating of the architectural pulse among Associates was clearly felt at the meeting, and if the great work of Unification and Registration is to be carried through, the President will not be embarrassed by the egotism and jealousies of the largest class in the Institute.

The President in his informal opening address, asked the meeting to give their attention to the fundamental question of how much sacrifice was needed before allowing "Outside Architects" to be enrolled among the present classes of the Institute. If the R.I.B.A. examination was not employed as a test for membership, some sort of qualification was still needed. It was felt that the Institute must have the last word in selecting new members.

Certain schemes for admission were discussed and a Committee of Associates was formed, who would act as a safeguard to their class in seeing that a fair level of merit was obtained before new admissions were granted. A possible solution was advanced by one speaker, who advocated that "Outside Architects" should be admitted to the Institute as a new class called "Members" or what you will, thus preserving the sacred name of "Associate" from unwelcome invasion. The majority

of speakers indicated that if the R.I.B.A. desires the goodwill of those outside the Institute, they must open their doors, if not wide, at any rate to a sufficient extent, to enable the profession to obtain that essential unity, which must be the forerunner of a Registration Bill, which Parliament could accept.

#### Sir Rowand Anderson.

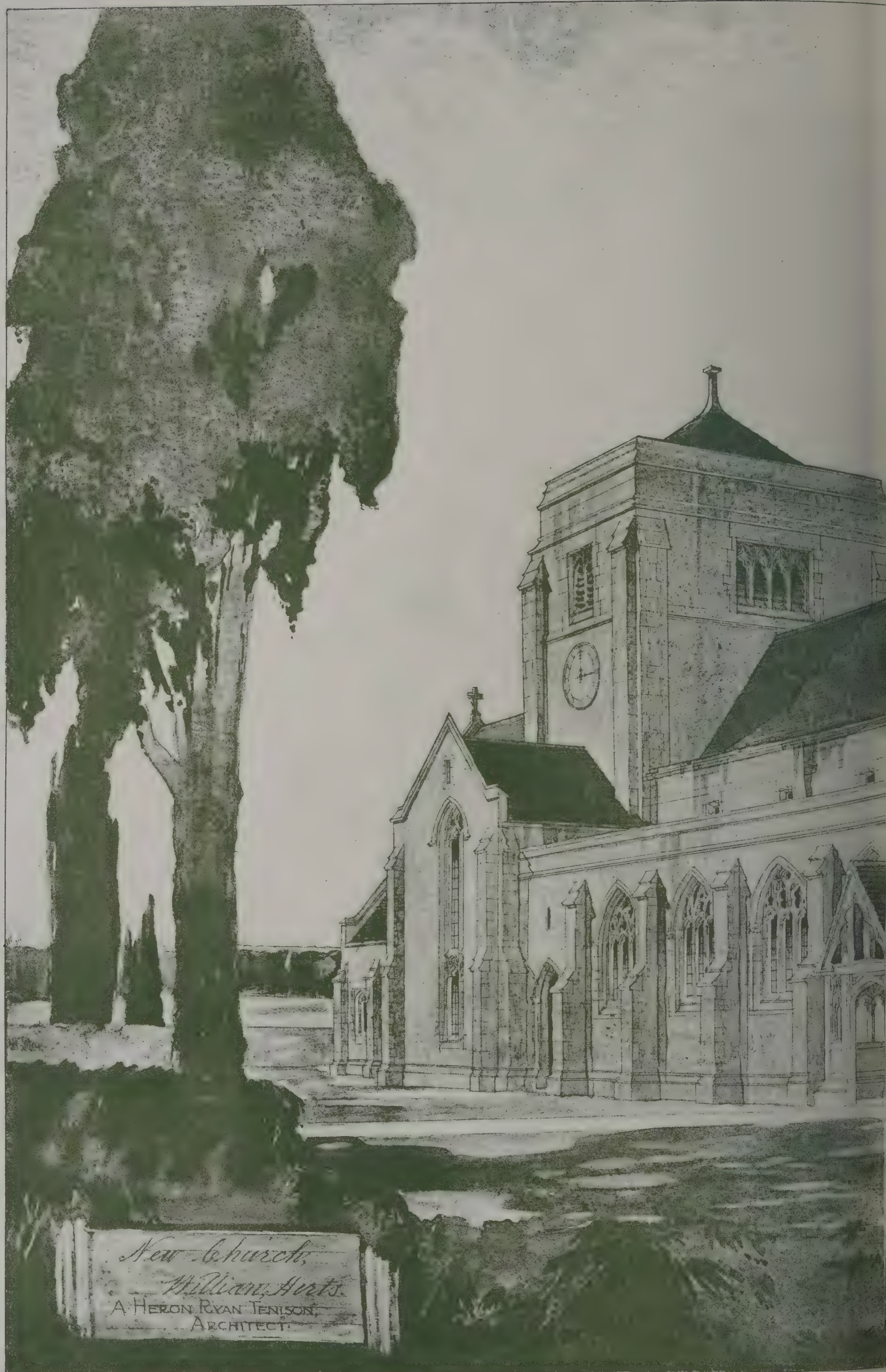
THE regrettable death of Sir Rowand Anderson leaves a gap in the ranks of noted architects both here and in his own land. Few men were more widely known and respected, and few have carried out a greater number of commissions connected with great historic buildings. He restored Dunblane Cathedral, Paisley Abbey, Dunfermline Abbey, Culross Abbey, while among important domestic work may be mentioned his work for the late Marquis of Bute at Mount-Stuart. The Caledonian Railway Company's new offices in Glasgow and the M'Ewan Hall are among his most notable work among commercial and educational buildings. Though belonging to the Victorian era his work will always command recognition by the absence of pretentiousness, and by its dignity. He was, unfortunately, handicapped throughout his life by his want of proficiency as a draughtsman, a trait he shared with Bodley's partner Garner, and a trait which has perhaps sometimes saved an architect from the pitfalls into which a greater quality of manual dexterity renders it too easy to fall.

#### Ex-Service Men.

THE London Master Builders have carried out the arrangement made with the Government by posting up notices that from now onwards work for bricklayers, plasterers, tilers, and slaters would be open only to men who are willing to work with and assist ex-Service men in learning a trade. So far, in spite of the attitude of the unions concerned, no hitch or disturbance seems to have occurred, and it is to be hoped that the individual unionist's fear of unemployment will make him turn a deaf ear to the more belligerent advice he may receive from officials. It is probable that in a few months' time daily association with the ex-Service men so employed will engender a common feeling among men employed

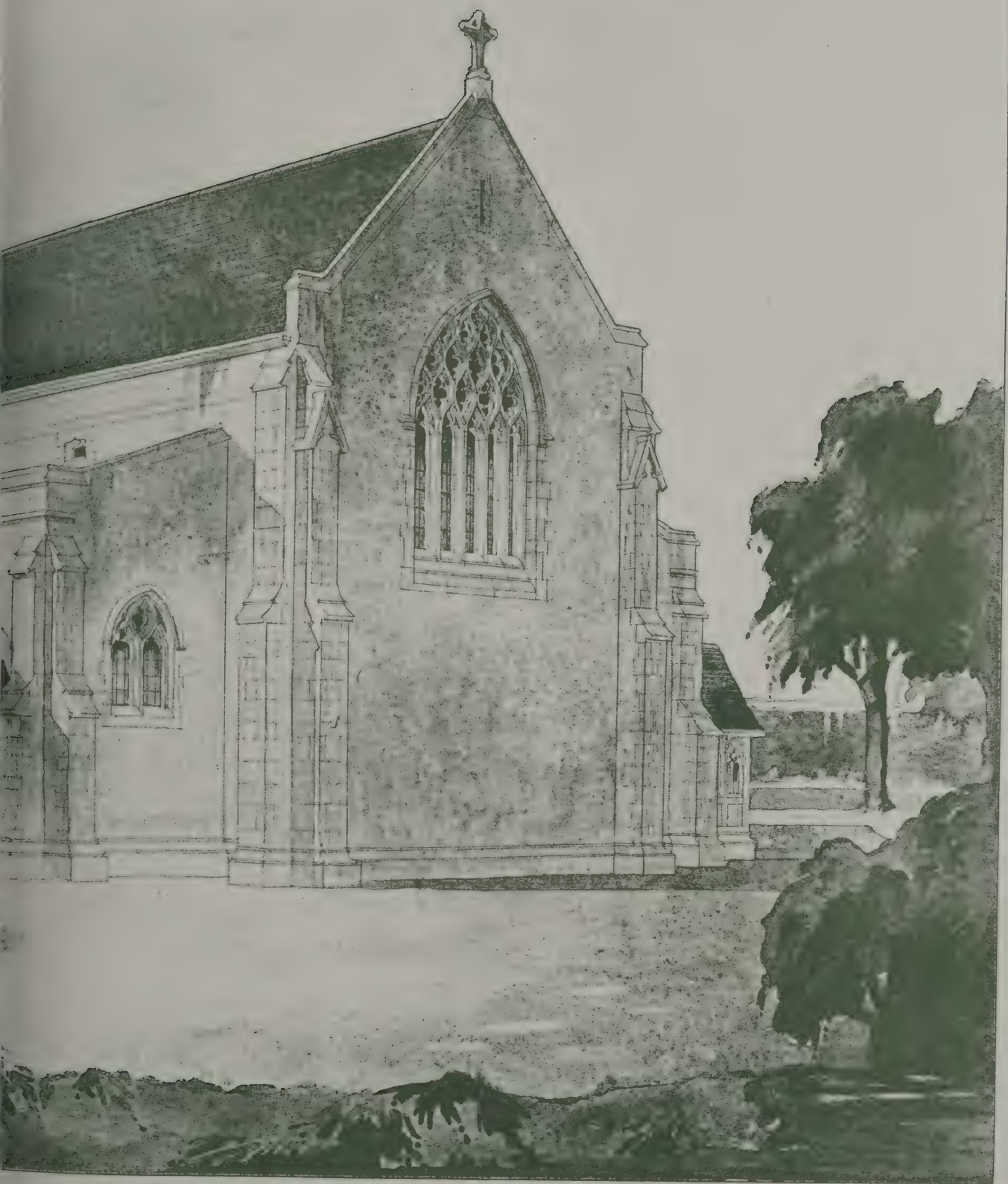


THE LIBRARY  
OF THE  
UNIVERSITY OF ILLINOIS





NE 10th, 1921.



OF THE  
UNIVERSITY OF ILLINOIS



THE LIBRARY  
OF THE  
UNIVERSITY OF ILLINOIS

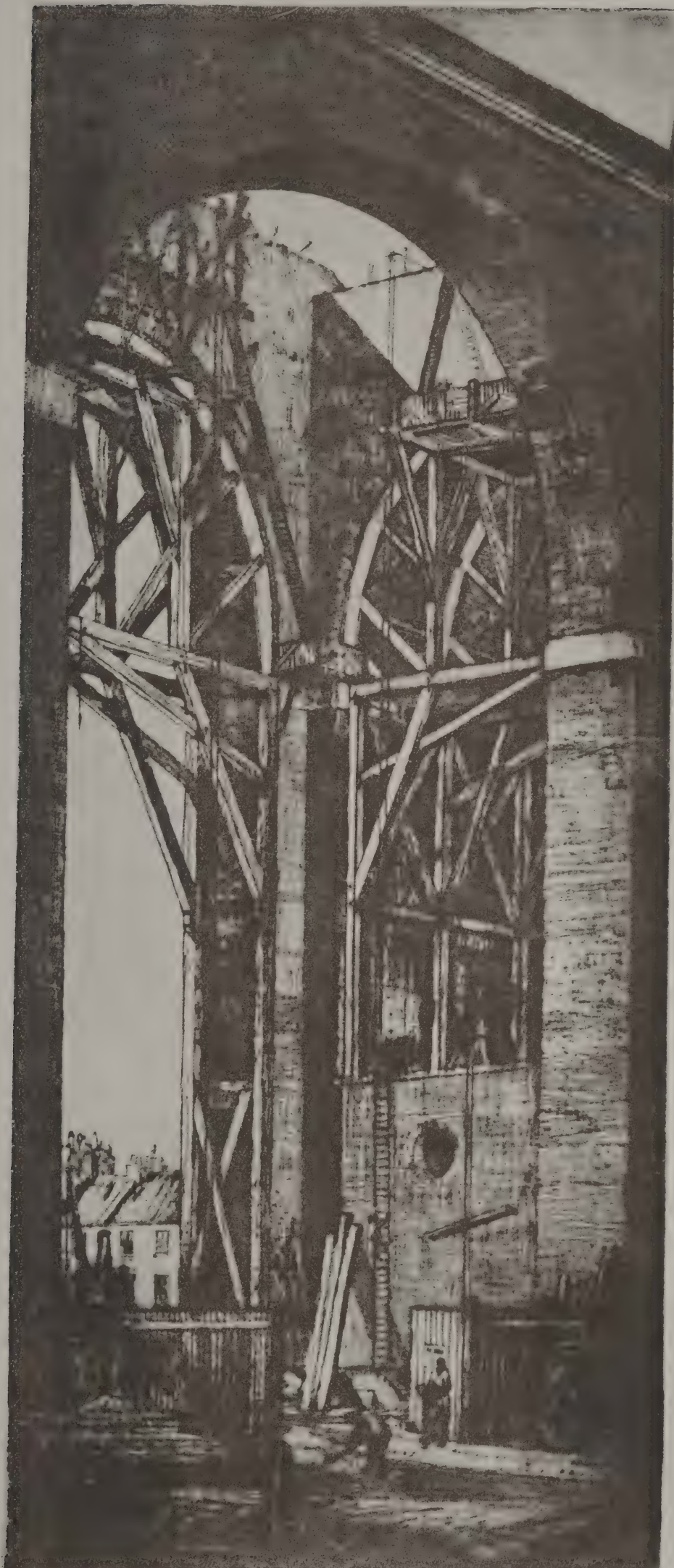


SCREENLESS PHOTO PROCESS, SPRAGUE-HAYCOCK (PRINTERS) LTD, 69 & 70, DEAN STREET, LONDON, W.1.

"BUILDINGS OLD AND NEW."

BY LESLIE MANSFIELD.





SCREENLESS PHOTO PROCESS, SPRAGUE HAYCOCK (PRINTERS) LTD. 69 & 70 DEAN STREET, LONDON W.1.

"BRIDGE BUILDERS."

BY LESLIE MANSFIELD.

THE LIBRARY  
OF THE  
UNIVERSITY OF ILLINOIS



FOR LIBRARY  
OF THE  
UNIVERSITY OF ILLINOIS





The illustration depicts a grand, multi-story building, likely a residence or institutional structure, featuring a prominent portico with columns. A large, mature evergreen tree stands in the foreground, partially obscuring the building. A detailed floor plan is overlaid on the upper right portion of the image, showing the internal layout of the building. The floor plan includes various rooms such as a Grand Hall, Library, Billiard Room, and several smaller rooms and corridors. The overall style is that of a historical architectural drawing or engraving.

THE LIBRARY  
OF THE  
UNIVERSITY OF ILLINOIS



in a similar capacity on building work, while the lesson of the present coal strike is that even the most powerful union in the country cannot compel submission to extreme views.

### Housing Ethics and Finance.

IN the magazine issued by the Garden Cities and Town Planning Association there is a third article on a National Housing Policy which is a good illustration of specious logic and vicious propaganda. In dealing with finance it is stated that money has been found by the issue of Housing Bonds, the issue of local Loan Stock by the Public Works Loan Board, and the allocation of half the money received by the issue of National Saving Certificates allocated to the Public Works Loan Board for issue to the local authorities. This is not finance, but the borrowing of large sums which have to be found by the income-tax payer. Finance involves the creation of revenue by manipulation, and finance has been absent from all calculations of housing enthusiasts. Then again, it is suggested in order to meet the wishes of the building operatives that all skilled operatives should be given certificates which would entitle them to priority in State and municipal employment in times of depression, and that an unemployment fund should be made by a levy of 2d. in the £ on wages, 2 per cent. from the employers on their wages bills, and a million pounds a year from the State. We disagree *in toto* with the last two suggestions; the first of which increases the cost of building by over 1 per cent., the second being a direct bribe. By all means let the unions, who are so autocratic, use their compulsory powers to form an insurance fund, but let us leave others alone. The true interests of mankind and of trade will not be promoted by forcing one class to pay for what another class wants, while housing the population at uneconomic rates must inevitably increase and not decrease the housing shortage.

### Greater Cardiff.

CARDIFF has now received official sanction to its application for a Town-planning Order, which embraces an area of 10,000 acres within the jurisdiction of the Llandaff and Dinas Powis Rural District Council, which strenuously opposed the granting of the Order, alleging that they were the authorities which should proceed with such a scheme. It was, however, argued that they had no intention of doing so, and, after an inquiry held by the Ministry of Health, the application of the Cardiff Corporation has been sanctioned. Most of the country between the Barry-Pontypridd railway and the present city boundary is in the scheduled area, and the powers already conferred upon the Corporation will enable it to continue its town-planning scheme across to the Llandarne and Llanfedw boundaries on the east and northwards as far as the Caerphilly boundary, the total acreage of about 19,000 acres, including Ely, Caerau, St. Fagan's, Llanilern, Radyr, Tongwynlais, Pentyrch, Llandaff, Whitchurch, Llanishen, and Lisvane. We hope that some small gaps will be left between the various colossal town-planning schemes now contemplated, and also that the details of the contemplated schemes will be settled with reasonable despatch, as the hold-up of property which often occurs in these matters is extremely inconvenient to individuals.

### Forthcoming Events.

**Friday, June 10.**—Royal Sanitary Institute.—Sessional Meeting (second day) at the Guildhall, Gloucester. Discussion to be opened by Major E. W. A. Carter, O.B.E., M.I.M.C.E., on "The Collection and Disposal of House Refuse." 10 A.M.

**Saturday, June 11.**—London and Middlesex Archaeological Society.—Visit to Chisellhurst under the guidance of Mr. Arthur Bonner, F.S.A.

**Wednesday, June 15.**—Institution of Municipal and County Engineers.—Opening of forty-eighth annual general meeting and conference at the Institution of Civil Engineers, Westminster (three days). 10 A.M.

**Friday, June 17.**—Cricket match at Elstree.—Society of Architects v. the Architectural Association. 11 A.M.

## Royal Institute of British Architects.

At the business meeting of the Royal Institute, held on Monday last, the result of the annual elections was announced as follows:—

### Council, 1921-1922.

*President.*—Paul Waterhouse.

*Honorary Secretary.*—Arthur Keen.

*Vice-Presidents.*—Professor S. D. Adshead, A. W. S. Cross, E. Guy Dawber, and H. D. Searles-Wood.

*Members of Council.*—H. V. Ashley, Major Harry Barnes, M.P., Walter Cave, Sir Banister F. Fletcher, J. G. S. Gibson, W. Curtis Green, E. Stanley Hall, H. Austen Hall, E. Vincent Harris, H. V. Lanchester, T. Geoffry Lucas, Sir Edward L. Lutyens, Alan E. Munby, C. Stanley Peach, Sydney Perks, W. E. Riley, G. Gilbert Scott, and Maurice E. Webb.

*Associate-Members of Council.*—H. Chalton Bradshaw, Stanley H. Hamp, J. Stockdale Harrison, J. Alan Slater, M. T. Waterhouse, and J. H. Worthington.

*Past-Presidents.*—Sir Reginald Blomfield and John W. Simpson.

*Representatives of Allied Societies.*—H. T. Buckland (Birmingham Architectural Association), C. B. Flockton (Sheffield, South Yorkshire and District Society of Architects), Gilbert W. Fraser (Liverpool Architectural Society), J. Alfred Gotch (Northamptonshire Association of Architects), A. W. Hennings (Manchester Society of Architects), L. Kitchen (York and East Yorkshire Architectural Society), T. R. Milburn (Northern Architectural Association), William T. Oldrieve (Edinburgh Architectural Association), and W. B. Whitie (Glasgow Institute of Architects).

*Representative of the Architectural Association (London).*—W. G. Newton.

*Auditors.*—John Hudson, *Fellow*; A. W. Sheppard, *Associate*.

### Election of Standing Committees, 1921-1922.

#### ART.

*Fellows.*—Professor S. D. Adshead, Herbert Baker, Walter Cave, J. J. Joass, Sir Edwin L. Lutyens, Ernest Newton, Halsey Ricardo, Professor A. E. Richardson, Professor F. M. Simpson, and Maurice E. Webb.

*Associates.*—W. R. Davidge, Cyril A. Farey, Percy W. Lovell, M. T. Waterhouse, William A. Webb, and Arthur Welford.

#### LITERATURE.

*Fellows.*—Louis Ambler, Martin Shaw Briggs, H. C. Corlette, W. Curtis Green, E. Stanley Hall, Henry Heathcote Statham, Arthur Stratton, C. Harrison Townsend, W. H. Ward, and P. Leslie Waterhouse.

*Associates.*—W. H. Ansell, H. Chalton Bradshaw, Lionel B. Budden, Arthur T. Edwards, J. Alan Slater, and J. H. Worthington.

#### PRACTICE.

*Fellows.*—H. V. Ashley, Max Clarke, A. W. S. Cross, G. Topham Forrest, Arthur Keen, G. Henry Lovegrove, C. Stanley Peach, Sydney Perks, John Slater, and W. Henry White.

*Associates.*—Gilbert Scott Cockrill, H. W. Cubitt, H. V. M. Emerson, J. Douglas Scott, D. Lewis Solomon, and Herbert A. Welch.

#### SCIENCE.

*Fellows.*—H. Percy Adams, R. S. Ayling, George F. N. Clay, W. E. V. Crompton, Francis G. F. Hooper, Alan E. Munby, S. B. Russell, H. D. Searles-Wood, Professor R. Elsey Smith, and Raymond Unwin.

*Associates.*—Robert J. Angel, H. W. Burrows, C. A. Daubney, G. Leonard Elkington, J. H. Markham, and Charles Woodward.

MR. LOUIS AMBLER, F.R.I.B.A., has been elected a Fellow of the Society of Antiquaries. Mr. Ambler is the author of "The Old Halls and Manor Houses of Yorkshire," and is chairman of the Council of the Society of Yorkshiremen in London.



## London Art Galleries.

(All rights reserved.)

THE new London galleries of Messrs. Henry Graves, Gooden and Fox, Limited, in their reconstructed form, are among the finest West-End galleries. My readers will remember that within the last year Messrs. Graves removed from their establishment in Pall Mall East,—which dated back to the days of the famous Alderman Boydell, but which was acquired by Messrs. Cox, the Army bankers—and migrated to 60 and 61 New Bond Street; the premises, in fact, which were occupied by Messrs. Robinson and Fisher during the war, when their sale rooms in King Street had been completely wrecked by a Zeppelin bomb. But I could scarcely recognise yesterday the same rooms under their new conditions, with the former long passage widened out into a long and spacious gallery, splendidly lighted; indeed, if there is any fault—and it is a good fault—it may be that the lighting is too strong.

On June 2 there was opened here an exhibition of portraits by Mr. Alfred Jonniaux, an artist who had studied in Paris and Brussels, but who has, I understand, exhibited in London at the Royal Academy and the Royal Society of Portrait Painters, and has been for the last two years settled in England. Mr. Jonniaux is very successful here with his Mrs. Elizabeth Birrell, and his Sir Hall Caine, K.B.E., is a good head: the beautiful Mrs. Jan Bullough reappears as Lily Elsie (seen in a mirror) in "The Merry Widow," but the most successful portrait here is the "full-length" of Mrs. Harcourt Webb, in a black velvet dress with a crimson theatre cloak just thrown back,—good alike in pose and colour, a fine portrait of a beautiful sitter. The artist is successful too with his "Rosemary and Viola Calmettes," two charming children, where the flesh treatment suggested to me something of the manner of Bouguereau. The hands here—a test of drawing—are good in this last group and in the portrait of Mrs. Adair; but sometimes the flesh colour tends to be chalky, "Mary, daughter of Sir John Latta" and "Mrs. Luke Hansard," painted against a very trying background, being instances of this fault. What M. Jonniaux can do at his best is shown in the "Mrs. Harcourt Webb." Preceding this in time here were the water colour drawings—of Wales for the most part, specially of Anglesey—by George Cockram which are still on view. Among the best are "Snow in the Glyders," "An Anglesey Estuary," and "A Venetian Lagoon."

At the Fine Art Society was opened last week an exhibition of very brilliant drawings by R. Vicaqi. These seem to be in water colour and gouache, left throughout very loose and liquid, all finish usually kept out. The result is very versatile and attractive, sometimes reminding us strongly—the "Harbour, Cassis" is an instance—of William Walcot's colour and treatment, "Coming up Canal" and "The Fish Market" being among the best. In his little group of seventeen paintings from California, the artist introduces a very strong and assertive blue—"A Stream, Yosemite," and "A Californian Trout Stream," are examples, but it appears in nearly all—which may be true to local colour over that side, but is not pictorially harmonious. The oil paintings by Arthur Friedenson in the first room here are sound, careful work, dealing very frequently with storm effects,—"The Storm Cloud," "Approaching Storm"; while in "Wareham" we feel the rain just coming on us, and feel inclined to rush for a coat or umbrella. In his luminous "Dorset Landscape—Evening" and "Breezy Haying Day" the painter treats Nature in her more tranquil aspects.

At Walker's Galleries in New Bond Street an exhibition of Eastern and other sketches in water colour by Lieutenant-Colonel Engleheart, C.B.E., is being shown from May 30 to June 11. Egypt claims a large place in these studies, among the best being "The Sais Mosque, Cairo," "Fellahin Women Carrying Water in Egypt," "The After-glow, Egypt," and "The Approach of the

Sandstorm"—this last a scene which recalls that given recently in the successful production of "The Garden of Allah." Colonel Engleheart,—who, by the by, is of the same family as the famous miniaturist George Engleheart, his great uncle, and whose grandfather was also an artist,—shows good drawing in his buildings, his figures, and especially his animals, the little group of Egyptian donkeys in "After the day's work—outside Kairouan" being excellent. He does not confine himself to the land of the Pharaohs, and I like quite as well some of his subjects outside, such as "Mentone, from Cap Martin," "Fiesole," and "Floodtime, Loch Lomond," where he reaches after more freedom of handling.

Othon Friesz, whose merits have been discussed by Mr. Clive Bell in a recent number of "The Burlington Magazine," is now holding an exhibition in the Independent Gallery, which seems to give us a fair idea of this artist's methods. "Friesz," we are told, "whose character and intelligence are utterly unlike those of his compeers, is producing work which has little in common with that even of Matisse." One of the most attractive studies here, in my judgment, is that called "La Bergère assise (Italie 20)," where the figure of the seated shepherdess has great charm, and the colour and composition is good. M. Friesz seems to lapse into more ordinary and careful architectural drawing in his "Campanile," though the result is not specially interesting. His group of peasants "Sous la figuier" might be reminiscent of Italy as seen by Claude, though in a very different key; and his "Jeune Femme à la fenêtre" has been even compared with the Mona Lisa, but if so is without her mystery her charm, and (note the right arm) her sense of exquisite form. In the inner room Miss Nina Hamnett has water colours of Paris cafés and gardens.

S. B.

## Art News of To-day.

At Messrs. Christie's, on Wednesday, June 8, there was sold the fine collection of old English silver, from the times of Elizabeth and the Stuarts down to the Georgian period, the property of Lieut.-Col. Crompton Roberts D.S.O., to which we have already alluded in these columns. We hope in next week's issue to give some details of this interesting sale. A later sale of great importance will be that of the Beardmore collection of arms and armour on Tuesday, July 5.

It appears to be now settled that the much discussed portrait of the "Chef de l'Hôtel Chatham," as it failed to comply with the conditions of the Chantrey bequest has been generously presented by the artist to the Diploma Gallery—though, had it been for sale, we believe a very good price could have been secured. We understand that the original of Sir William Orpen's famous picture has arranged to place his services at the disposal of the Royal Palace Hotel, Kensington, and that his own artistic impulse has found expression in the creation of a new sauce.

In artistic circles the coming exhibition at the Guildhall Art Gallery is creating much interest, and we hope to say more of this in our next issue.

We mentioned last week the collection of wooden utensils being exhibited by Mr. Evan Thomas at 20 Dover Street, up to and including June 21. These wooden drinking vessels, known as "mazers," were used in the old monastic house from the fourteenth to the sixteenth centuries, Canterbury, for instance, possessing in 1328 no less than 182 of these "mazers." They were frequently bound or edged with silver, and used as "Loving Cups"; though each monk seems to have had his own "mazer" for personal use. In the eighteenth century "lignum vitae" was brought over from South America, and it was then that some of the noble "wassail" bowls, which appear in Mr. Evan Thomas's collection, were made, notably the "Muscovia Bowl," here shown of this wood, silver-mounted, belonging to the "Company of Merchants of Russia."



## Building a House.

THE fifth of the six public lectures arranged by the Royal Institute of British Architects was given on June 2 at 9 Conduit Street, W., by Mr. Henry M. Fletcher, M.A., F.R.I.B.A. The chair was occupied by Mr. Ernest Newton, R.A.

Mr. Fletcher said he was going to talk undiluted "shop," which must necessarily be stale to any architects present. His object would be to explain the architect's point of view on that piece of difficult co-operation, the building of a house. The subject of his lecture had been selected in the hope that the more the processes involved were understood, the more his apparently inexplicable whimsicalities would be forgiven. If at the same time it came to be felt that the architect has greater sympathy with his client's point of view than was often credited to him a step forward would have been made and an hour not altogether wasted.

The architect ought to be consulted from the very beginning, even before the plot is bought. The best-schemed house may be made inconvenient by wrong placing, and the loveliest site may have half its beauty spoiled if the house is crudely set. At this stage there are three primary considerations—viz., approach, aspect, and view. The ideal is a site sloping southwards to a fine view, with a shelter from the east and south-west winds and a road on the north. The house is placed close to the road, with entrance, offices, staircase, and passages on the north side, and principal rooms facing east, west, and south. A position diagonal to the cardinal points is even better and may often be arranged. Personally, said Mr. Fletcher, he felt more and more strongly the all-importance of aspect and would rather look into the side of a hill or at a factory chimney than give up the sun in this climate. The sun can be blocked out with curtains if need be, but cannot be got into a northward room. At this stage the architect, in order to help discussion and decision, will get out rough preliminary undetailed plans. These will show not only the placing of the building and the relative positions of the rooms, but ought also to include suggestions for the shaping of the surroundings, the garden, the drive or forecourt—matters which intimately concern him. The architect becomes enlightened a little about the circumstances, wishes, and, above all, the mind and disposition of the owner—knowledge which, whether consciously or unconsciously, is bound to influence the final shape his design will take, and safeguards him against stereotyped repetition. The designer need not worry overmuch about expressing the character of his client in the building, every conversation he has with him will register itself somewhere. Neither need he worry about expressing his own individuality, for if he possesses any it will express itself, and if he possesses it not, he will do very little good. A certain impersonality, such as we find in the work of a tradition or a school, makes for permanence; a wilfully emphasised individualism, often captivating for the moment, wears badly in the long run.

After the main lines have been amicably settled then follows what is for the architect the most vital and laborious piece of the whole work, the preparation of the  $\frac{1}{4}$ -in. working drawings. The requirements will be classified in order of importance—necessities first, then desirables, and unimportant things left to be fitted in. As a cross-classification there will be a grouping of rooms together and apart, according to aspect and convenience of service, the kitchen and pantry near the dining-room, the staircase if possible near the middle, to minimise corridors, the bathrooms to serve groups of bedrooms and economise plumbing and drainage, and so forth. And from the ground-floor up the possibilities of a shapely, economical, and simple roofing scheme must be strictly kept in mind. All this means a generous expenditure of tracing-paper and indiarubber and brain stuff. A modification in the shape of one room may easily involve alterations throughout which will amount almost to a redesigning of the entire plan. The building being in

three dimensions cannot be designed in two, and sections and elevations must take shape along with and not subsequently to the plan. There is hardly a limit to the scraping and polishing and scrubbing which a design must undergo before it is fit to take shape in bricks and mortar. At this point it is necessary to work out certain important parts to a large scale, usually  $\frac{1}{2}$  in. to 1 ft., and the architect is lucky if this does not cause further modifications of the  $\frac{1}{4}$ -in. scale drawings.

Next comes the work of the quantity surveyor—a wonderful man, said Mr. Fletcher, whose work is too little appreciated or even known by the public. He is master of a peculiar literary style, which in its breathlessness and the number of subjects it packs into one clause is super-legal, almost Teutonic. A bill of quantities is a rather bulky document; one for a house with three living rooms and seven to nine bedrooms and no elaborate work, such as before the war cost from £2,000 to £3,000, will run to some 120 pages of lithography. The quantity surveyor not only takes out the quantities, but often has to do a great deal of measuring while the work is in progress, and to prepare the schedule of variations and omissions at the end, and the final statement of accounts for settlement. The responsibility for all this towards the client falls upon the architect, and it is charged for according to a recognised scale whoever does it, so that from the client's point of view it does not matter whether it is done by the architect or his deputy. Next, the quantities are sent off to the contractor or contractors who have agreed to submit prices. In the opinion of the lecturer it is of the highest importance that the architect should by every possible means satisfy himself as to the character and standing of any builders whom he allows to tender. If the tendering is not competitive and only one firm is asked for a price there can be no question of this. If competitive tendering is adopted and entries are closed by invitation (and tenders from all comers should, he said, never be allowed in house building) the only fair course is to accept the lowest. The result if an unscrupulous or even a doubtful contractor is on the list is certain disaster, and no amount of pressure from his client or anyone else should induce an architect to give way on this point. While the estimate is preparing there is something of a lull in the pressure on the architect, though mentally it is a period of suppressed excitement and alternate anticipation of the best and the worst, culminating in the arrival of the tenders and confirmation of his hopes and fears. If drastic cutting down is called for his most difficult time sets in. No ordinary parent really enjoys seeing his child flung upon the scrap heap. Moreover, the architect's experience tells him that if the owner, alarmed at high prices, decides to do without things he asked for, he is quite likely at a later stage, when his keenness is spurred by seeing the building take solid shape to decide that he can afford them after all and ask to have them back again. This will mean the further mutilation of the already recast design and undoubtedly a larger outlay than the carrying through of the original scheme.

After the price has been agreed upon there comes the arrangement and signing of the contract. The specification is largely a condensation of the bill of quantities, and partakes of its elegancies of language, but contains also a good deal of fresh matter. On the clearness and fulness of the specification much depends, and it may easily run into 100 pages. The contract form itself is stereotyped, with gaps to be filled in according to circumstances. Then three sets of documents, the  $\frac{1}{4}$ -in. scale drawings, the specification, and the contract form, are signed by owner and builder; a sixpenny stamp is affixed to the contract form and cancelled; the preliminary incantations are now complete, and the work may go ahead.

Next comes another phase of the architect's work, the supervision of buildings in progress. Here there will be plenty of details to settle, for however carefully the drawings have been made and the specification written, there is much that can only be decided on the spot, and many unforeseen difficulties to be conquered or dodged.



In the meantime there is plenty of designing to do. Important sections of the building, such as the stairs or panelling, are worked out to the scale of  $\frac{1}{2}$  in. to 1 ft., and chimney-pieces and other fittings 1 in. to 1 ft. Full-size drawings have nowadays to be made of all mouldings in every part of the building, for the nineteenth century smashed tradition with a sledge-hammer and substituted mash and muddle and restless experiment for the old-time competence of the craftsman. Freely interspersed with this real work of designing, filling up all the chinks and often encroaching upon it to an unwelcome extent, comes what, to many architects, is the most toilsome labour of all—correspondence.

To judge of the final effect of work in progress requires some imagination and more experience. As the building grows it changes like a chameleon. At one stage it looks spacious, at another cramped. At most times it appears dark and poky, for the brickwork and undercoats of plaster absorb all the light. The owner is usually more nervous on this score than on any other. But Mr. Fletcher confessed there are times in the growth of most buildings when the architect feels a sinking of the heart and retires to a lonely corner to murmur, inaudibly of course, "Can this be my doing?"

If the layman is wise and has sufficient self-control, he will make his visits few and far between, and will fortify himself with that perfect trust which, to the architect's eye, marks out the perfect client. Perfect trust gives birth to enthusiasm, and enthusiasm to good work. There is an ever-present temptation while the building is in progress to introduce modifications. One cannot lay down a cast-iron rule, but the ideal is to think things out so carefully beforehand that they are not needed. Still, buildings are apt to spring surprises, even upon their authors, and it is absurd to allow manifest faults to go uncorrected, or not to take advantage of unexpected opportunities.

Finally comes the settlement of accounts. If the builder be honest and the surveyor clear-headed, there should not be room for much dispute, though among the infinity of small items there will always be a certain proportion which are open to genuine argument.

The account settled, there remains the passing of a cheque from client to architect for the final instalment of his fee. Then follows, it is to be hoped—and the hope is, said the lecturer, very far from a pious aspiration, it is founded on the experience of many and many an architect—a life-long friendship between architect and client. A friendship based on the foundations of a house is firmly based, one that has stood through the storm and stress of building operations is toughened to resist all tests.

## Rome Scholarship in Architecture.

### Henry Jarvis Studentship.

THE Faculty of Architecture of the British School at Rome have awarded the Rome Scholarship in Architecture 1921, offered by the Commissioners for the Exhibition of 1851, to Mr. S. Rowland Pierce; and the Henry Jarvis Studentship, offered by the Royal Institute of British Architects, to Mr. E. W. Armstrong.

The designs executed in the final competition for the awards will be on view in the galleries of the Royal Institute of British Architects, 9 Conduit Street, Regent Street, from June 8 to 18, daily from 10 A.M. to 8 P.M.; on Saturdays from 10 A.M. to 5 P.M.

*Rome Scholarship 1921:*—Mr. S. Rowland Pierce is an original member of the Architectural Association Atelier and holds an appointment on the staff of the Architectural Association. He was born at St. Leonards in 1896 and received his first technical training at the Hastings School of Science and Art. The Rome Scholarship in Architecture of the value of £250 a year and tenable for three years at the British School at Rome, is open to British students under thirty years of age.

*Henry Jarvis Studentship:*—Mr. Edward William Armstrong is twenty-five years of age and was born at Feilding, New Zealand. After service in France with the

New Zealand Expeditionary Force he entered the Architectural Association with a New Zealand Government Scholarship and subsequently qualified for the associateship of the Royal Institute of British Architects. The Jarvis Studentship is awarded on the result of the Rome Scholarship examination to the student or associate of the R.I.B.A. who passes next in order of merit to the winner of the Rome Scholarship.

### Subject for Final Competition.

*A Town Church.*—The site is level measuring 250 feet by 150 feet. It is bounded on all sides by streets, the main thoroughfare 120 feet wide being on the west.

The church is to be planned with a view of the chancel unobstructed as far as possible by piers or columns.

Neither transepts, dome nor spire are essential, but the widest discretion is left to the competitors.

*Drawings required at end of first day.*—A plan and one section to  $\frac{1}{16}$  inch scale: these may be freehand drawings, but they must not afterwards be departed from in essential particulars.

*At close of competition.*—A block plan showing surroundings to  $\frac{1}{16}$  inch to 1 foot. Ground floor plan drawn to a scale of  $\frac{1}{8}$  inch to 1 foot. One or two sections drawn to a scale of  $\frac{1}{8}$  inch to 1 foot. Two or three elevations drawn to a scale of  $\frac{1}{8}$  inch to 1 foot. One bay internal or external or part of the west front to a scale of  $\frac{1}{2}$  inch to 1 foot. A perspective view is optional. Drawings to be on paper not exceeding double elephant size.

## "The Architect" Fifty Years Ago.

JUNE 10, 1871.

### LORD DERBY ON POOR MEN'S DWELLINGS.

"THE Poor ye always have with you;" but "the Poor" and "the Working Classes" are two very different kinds of people; and the principle is not sufficiently recognised that the true Working man—that is, the steady artisan—is an independent citizen who may fairly consider himself insulted, and as matter of fact does hold himself to be so, by being coupled with the much inferior person whose home has for a good many years been the subject of so much public criticism as a scandal to English civilisation. Of course the Poor man is a Working man as matter of phraseological classification; but the Working man is not necessarily a Poor man in that sense or any other; and it is to be seen at a glance that it is not the *Working Man's Dwelling* that is matter of anxiety with philanthropists and social economists, but the *Poor Man's Dwelling*. In fact, without intending anything like unkindness, we cannot help at least acknowledging a certain argument which will probably arise of itself in the mind of every reader of these lines by reason of the mere commonplace suggestions which attach to the use of terms. The Poor man, says the Working man, is the man who won't work, or, what is the same thing, who won't work steadily and live steadily—exceptions only proving the rule; and the physically and morally pestiferous dwellings of London and other large towns are those to which such a man is driven by the dire necessity of poverty induced by idleness, improvidence, and intemperance.

Now, if this argument be true as to fact, not only is it one which separates effectually the Poor man from the Working man as regards the honour of the great artisan class of this country thoughtlessly involved in an accidental turn of phrase, but it is one which appears to offer a key to the problem now before us, not perhaps new in itself, but capable of being used in a way which may have all the practical effect of novelty. If, in short, the scandalous dwellings are the dwellings of the degraded classes and no more, the question in some measure, if not altogether, ceases to be one of accusation against the social conditions of England—that they so badly lodge the poor, and becomes one of accusation against the degraded classes directly—that their degraded habits deprive them of the means of paying for decent lodgings.

THE King, on the recommendation of the Secretary for Scotland, has revived the office of Sculptor in Ordinary to His Majesty for Scotland, and has approved of the appointment to the office of Mr. Pittendrigh Macgillivray, R.S.A., LL.D. The last holder of this office was Sir John Steel, who was appointed Sculptor to the Queen for Scotland in 1838. No successor has been appointed since his death in 1891.



## Rebuilding Valparaiso and San Francisco: A Contrast.

By John Lathrop.

THERE was sharp contrast between the methods of rebuilding San Francisco, California, U.S.A., and Valparaiso, Chile, South America, after the earthquakes and fires in 1906. The contrast is to the credit of Valparaiso.

By most unusual coincidence, it was in the same month, April 1906, that each of these cities suffered from destruction by earthquakes which started conflagrations that swept large areas. In San Francisco the fire began at the water-front and burned across the principal business section, stopping at the broad Van Ness Avenue, at the edge of the finest residential district, leaving behind a blackened, desolate trail of utter ruin.

In Valparaiso the fire broke out in the centre of the northern half of the city, burning all that half.

One hundred thousand were homeless in each city. It was summer-time in San Francisco, therefore the people were not forced to endure severe inclemencies of weather. April, however, in Valparaiso, south from the Equator, was winter, so that the need for reconstruction was much more pressing than in the Californian City of the Golden Gate.

Valparaiso might not have rebuilt so wisely as she did had not the Chilean Federal Government at Santiago, the capital, possessing authority to control urban works—a most fortunate circumstance from the town-planners' point of view—commanded that not a new building be erected in the destroyed area until the entire district should have been replanned, the street system made economic, and property ownership adjusted to the new scheme.

The order was enforced literally, the Government supervising and, when necessary, contributing to the compensation of those who, by the replanning of street lines, lost some or all of their lands.

Valparaiso had narrow streets, laid out by no plan of co-ordination, and with no reference to the demands of traffic flow, light, and air. Some of the streets were so narrow that pedestrians were compelled to stand close to the buildings when tramcars passed. There was little that was attractive, other than the picturesqueness of the quaint and impractical.

The new streets were laid out on the principle common to all proper town-planning, with arterial highways similar to the main trunk lines of a railroad, with secondary highways corresponding to the branch railroad lines; the whole touched by the hand of art to combine the practical and economic with the beautiful.

Types of buildings were controlled by the Government within reasonable limits, insuring harmonious architecture, without stifling individual initiative by architects who sought to express originality of design.

The whole effect was, of course, satisfactory, the effect fine! The rebuilt portion was so immensely benefited by the rational planning and co-ordination of all its parts, that, purely from a property pound-shilling-pence point of view, the people gained by augmented values and the city by an increased taxable total, because absolutely new values were created.

The social and æsthetic gains were incalculable. Traffic flowed with a minimum of obstruction; no excess lands were devoted to street use in quarters where vehicular and pedestrian traffic would be comparatively small, nor was land withheld where the community needed wide streets and recreation areas; building heights were co-ordinated with street widths, thus ensuring a scientific relationship between traffic flow, light and air, and the public highways, and the character of the buildings was also regulated so that the "zoning" system was installed, preventing the indiscriminate mingling of business and residential structures.

The rebuilt half offered striking contrast to the other undestroyed part. The art values of the older architectural types were carefully preserved, and the rebuilt area presented a fine appearance, the delight of the architectural profession, and the pride of the populace.

The result, in brief, was to give Valparaiso the permanent benefits of economy and real municipal art—for, as one has said, "art is order."

San Franciscans, on the other hand, although it was a salubrious summertime in which to begin the work of rebuilding, were in a tremendous hurry—a people of vast energies, remarkably quick decisions, and untold capacities for execution of plans: merits potential of good when properly directed. This time they were not properly directed. "Rebuild at once," was the public demand. The town-planners, who are numerous and progressive in the City of the Setting Sun, urged a brief pause to ensure the rebuilding along the lines of modern municipal art and economy. Their pleas were ignored.

The street system of San Francisco, while not so bad as that of the old Valparaiso, was by no means desirable—the "gridiron" system, with scarcely a diagonal street in the city. The opportunity was present to rebuild in a manner to make of San Francisco the most perfect large city in the world. It would have been, had opportunity not been ignored, the only large city which had a central business section constructed on ideal lines.

But not a street line was changed. The buildings were erected on the old gridiron system of streets.

To render the situation more serious, immensely high structures were erected of reinforced concrete, which will endure, no one knows how long, certainly longer than did the old-style wooden and brick types. These new buildings, costing from £100,000 to £200,000 each, and not a few from £400,000 to £800,000, consequently are permanent obstacles to any proposed re-planning such as Haussmann did for Paris, and such as Wren desired for London after the Great Fire of 1666.

There was a degree of wisdom shown, such as in the planning of the great municipal group for official quarters and certain public amusement functions; but these special features can never compensate for the failure to transform the whole of the devastated area to an ideality of arrangement, artistic and economic.

The authority was present in Valparaiso. It was lacking in San Francisco.

To-day, the people of the two cities are utilising the works of their rebuilding with opposite results—Valparaiso, through the years blessed by the benefits of wise town-planning, San Francisco denied those blessings.

"Valparaiso" is Spanish for "the Vale of Paradise." It is situate at the base of a mountain range, fills the lands along the seashore, and scrambles up the hillsides for residential sites. It is, indeed (at least, the newer half is), a Vale of Paradise on earth. Many a sigh is heard in the Californian city, in these days, that impatience hurried them in 1906 to proceed in their rebuilding before adequate plans had been laid. They console themselves, however, with the knowledge that they reside in a land of gorgeous beauty, incomparably blessed by Nature's bounty; and rich of opportunity, so attractive, that no lapse by man may materially mar its loveliness.

A PETITION has been presented to His Majesty in Council by the Institution of Civil Engineers, praying for the grant of a Supplemental Charter; and it has been referred to a Committee of the Privy Council. All petitions for or against should be sent to the Privy Council Office on or before June 30.

THE name of Lieut.-Col. Frederick Gill Rice is included in the list of Birthday Honours as one of the new knights. Sir Frederick Rice is senior partner in the firm of Messrs. Rice & Son, contractors, and has long held a prominent position in the building trades. He was a former President of both the Institute of Builders (1914-15) and the London Master Builders' Association; he represented the United Kingdom at an International Conference of Building Trades at The Hague; he was on the Committee of Board of Trade War Contracts and an original member of Committee of Labour Exchanges; he was a member both of the National Board of Conciliation of Building Trades and of the Industrial Council for Building Trades out of which arose the Whitley Report. His public offices include membership of the Council of the London Chamber of Commerce and a Colonelcy in a Cadet Battalion of the Royal Fusiliers.



## The late Sir Rowand Anderson.

WE regret to record the death, at his residence, Allermuir House, Colinton, Edinburgh, of Sir Robert Rowand Anderson, LL.D., F.R.S.E., F.R.I.B.A., which took place on June 1. Sir Rowand Anderson, who has been in precarious health for a considerable time, had reached the venerable age of eighty-seven. It may be remembered that on the occasion of the presentation to him of the Royal Gold Medal in 1916 the deceased was too unwell to come to London and that the medal was handed to the Lord Provost of Edinburgh, while Sir Rowand's address was read by Mr. Lorne Campbell. Other medals had previously been awarded to him by Paris, Munich, and Chicago. In recognition of the distinction, and of the fact that he was the first Scottish architect to receive the Royal Gold Medal, Sir Rowand Anderson was entertained shortly afterwards in Edinburgh to a luncheon by the Architectural Societies of Scotland. We give below the biographical notice which appeared in the "Scotsman":—

The son of Mr. James Anderson, an Edinburgh solicitor, Sir Rowand Anderson was educated at George Watson's old Hospital School, which occupied part of the site of the present Royal Infirmary. His father intended him to be a lawyer, and he was for a time in the office of Keegan and Welsh, solicitors. His bent, however, was in another direction. From his earliest years he had shown a fondness for drawing. He studied for a time at the Trustees' Academy, Royal Institution, under the late Mr. Christie, a contemporary of Dick Lauder. Afterwards he entered the office of Mr. John Lessels, one of the leading Edinburgh architects of the day; and to his young assistant was entrusted in 1857 the work of superintending the restoration of the roof of Greyfriars' Church, which some years before had been destroyed by fire. Subsequently he made a tour on the Continent, visiting France and Italy and Holland, picking up work when he could find it, and diligently transcribing to his note-book any architectural subjects that seemed to him of special interest. For a time he worked in the office of Cuypers, Amsterdam, then in great repute. His early experiences and study were further strengthened by a period spent in the London office of Sir Gilbert Scott, the great Gothic architect, who had a high idea of the abilities of the young Scotsman. When he returned to Edinburgh, he was for a time in the architectural branch of the office of the Royal Engineers; then he was a partner with the distinguished Scottish architect, David Bryce. Shortly afterwards he settled down, in the 'sixties, to business on his own account in an office in Dundonald Street.

From the outset Sir Rowand Anderson was looked upon as a rising man, and was kept busily employed in the designing of churches, especially Episcopal churches, of which denomination he was a member. He came into the public eye by his success in a competition for the building of the first new Board schools in Edinburgh just after the passing of the 1872 Act, and from his designs the Fountainbridge, Stockbridge, and Causeway-side Schools were built. These at the time were regarded as far in advance of anything hitherto attempted in primary school building. They gave a lead to the great development in this class of work which afterwards followed in the city. He was to obtain a greater triumph, however, a few years later, when, again in an open competition, his designs were accepted for the stately new Medical School of the Edinburgh University, which adorns the site at the north end of the Meadow Walk. This was a work of magnitude, which took eight years to build. It was carried out with great success under Sir Rowand's watchful eye; it is worthily regarded as one of the architectural adornments of the city; and it was in connection with the completion of this undertaking that at the memorable celebration of the Tercentenary of the University in 1884 he received the honorary degree of LL.D. He was also the designer of the M'Ewan Hall, gifted to the University by the late Mr. William M'Ewan, M.P. To him was also entrusted the task of completing Adam's design of the old University by crowning it with

a dome. His success in the University Medical School competition placed him at a bound in a foremost place in his profession, a position he continued to occupy to the end of his career.

Sir Rowand Anderson's name is also identified in the public mind as the designer of the Scottish National Portrait Gallery and Museum of Antiquities, Queen Street, a gift to the nation by the late Mr. J. R. Findlay; and, in the domain of domestic architecture, the palace reared by the late Marquis of Bute at Mount-Stuart may be cited as the most important example of the abilities of the architect in this branch of his art. Other architectural works of note were executed by Sir Rowand Anderson during his long professional career.

In connection with church architecture, Sir Rowand Anderson was frequently consulted regarding schemes for the restoration of ancient buildings; and it was he who carried out the restoration of Dunblane Cathedral, the chapel of King's College, Aberdeen, Borthwick Parish Church, and Culross Abbey. He was employed by the late Marquis of Lothian to devise measures for the preservation of Jedburgh Abbey, and these were renewed previous to this ancient religious house being handed over to the Ancient Monuments Commission. Similar work was undertaken under his direction at Sweetheart Abbey. He was also associated with the construction and restoration of many mansion-houses in different parts of the country. The Conservative Club, Princes Street, one of the ornaments of the leading thoroughfare of the Capital of Scotland, was from his design; another larger building, very much admired, of which he was the architect, is the Central Station, Glasgow, in which art and utility are happily combined. To him is credited the discovery of Colinton as a delightful residential suburb of the city. He was one of the first to build a villa residence there; and he was the architect of the pretty little Episcopal church of the village—one of the most elaborately and beautifully decorated little churches in the country.

As a leading Scottish architect, he had the honour of being chosen to represent Scotland in sending competitive designs for the Imperial Institute; also for the National Memorial to Queen Victoria at Buckingham Palace. Though these were not accepted, it was generally recognised that his designs were of a handsome and scholarly nature. Sir Rowand Anderson was the designer also of several historic memorials, chief among which may be cited the classic monument to the Marquis of Montrose in one of the chapels of St. Giles' Cathedral. He was a great worker, and his energies found expression in every department of his art.

A scheme with which he was intimately associated, and in connection with which he did lasting work for his profession and for the arts and crafts of the city, was the founding of the College of Applied Art, which had its headquarters in the Royal Institution, Mound, and was under the ægis of the Board of Manufactures. To his initiative was due the formation of the National Art Survey of Scotland, under which drawings of ancient buildings have been made from year to year by bursars of the school, and stored as Government property for purposes of reference. In the formation of the Edinburgh College of Art Sir Rowand Anderson also took much interest. He was a member of the Board of Management, and he had the satisfaction of seeing almost in its entirety the scheme of the College of Applied Art for the instruction of architects adopted in the School of Art. He was elected an Associate of the Royal Scottish Academy in 1876, but he resigned in 1883 on a question as to the architectural status of members of the Academy. During the Presidentship of Sir George Reid, Sir Rowand Anderson in 1896 was elected an honorary member of the Academy, and the old feud was in that way peacefully ended. In 1902 he received the honour of knighthood. He for many years had an estate at Tangier, and used to spend a part of the winter there. His experience of the country and its inhabitants made him a determined opponent of the French annexation of Morocco. As a result of his travels in Italy, he published a book on "The Mediæval Architecture of the Middle Ages"—a



work which was generally accepted as an authority on this interesting subject. He was also the author, in 1878, of a folio of "Examples of the Municipal, Commercial, and Street Architecture of France and Italy."

Sir Rowand Anderson was a man of wide sympathies, and despite a certain reserve in temperament had a large circle of friends. He was well read in historical and antiquarian lore; and he could write with facility on subjects in which he was interested. As an architect, as his designs showed, he was equally at home in Gothic and classic work; he had in all he did a fine sense of style and refinement of taste. Endowed also with great force of character and tenacity of purpose, his views on all matters connected with his art never failed to command respect. In politics he was a Conservative. He married in 1863 Mary, daughter of Henry Ross, of Kinnahaird, Ross-shire, who died three months ago.

## Why Houses are Scarce and Dear.

IMMEDIATELY after the termination of the war the Government embarked upon an energetic housing policy, desiring to provide hundreds of thousands of homes for the people. It was easy to procure the land. That involved on an average an expenditure of only £20. The problem was to raise the necessary houses. Unfortunately the number of building workers had decreased very greatly during the last ten years. The People's Year-Book for 1921, issued by the Co-operative Societies, contains the following extraordinary figures:—

	1910.	1911.	1914.	1920.
Masons ...	73,012	52,188	34,381	19,310
Slaters ...	9,796	8,391	4,154	3,673
Plasterers ...	31,300	25,082	19,479	12,067
Joiners ...	265,000	208,995	126,345	108,199
Bricklayers ...	115,995	102,752	73,671	53,063
Totals ...	495,103	397,408	250,030	196,312

Between 1910 and 1920 the number of builders' workers had shrunk to almost one-third. There was an unprecedented demand for houses. The building trade ought to have experienced at least ten years of unparalleled prosperity, even if the number of the workers had been as great as it was ten years ago. However, the trade unions in the building trade not only closed their ranks to outsiders and refused to allow 50,000 war veterans to join them, but they reduced their output very greatly, while demanding, and obtaining, vastly increased wages. The result was that only a few houses could be built, and that the cost became prohibitive.

The builders' workers, when reproached for their selfishness, asserted that the enormous cost of new houses was due, not so much to the trebled and quadrupled cost of builders' wages, but to the dearth of all materials, such as brick, cement, drain-pipes, ironwork, and fittings of every kind, and that "the profiteers" were to blame for it. It is quite true that all the materials required in housebuilding have risen very greatly in price. That rise is due, partly, to wage advances in the trades concerned, and, partly, to an important factor which is generally overlooked, to the increased price of coal. Since 1913 coal has quadrupled in price, owing to the miners' exactions and to their policy of restricting output. Unfortunately all the materials which are required in housebuilding require very great quantities of fuel. Brickworks, cement works, the earthenware industry, iron works, &c., are among the very largest consumers of coal. The cost of all the materials required was enormously enhanced by the miners' action. The miners and the builders' workers between them have created the present house famine, and have stopped the building of houses by making their erection impossibly dear.

The housing problem cannot be solved without cheap coal. Even if the bricklayers and other labourers had done their best and had erected the necessary houses rapidly and at moderate wage costs, millions of those who were supposed to inhabit them would have been unable to occupy them unless coal was plentiful and cheap. Practically all the housing schemes which have been drawn up were designed with a view to transferring the workers from the congested town slums to the outer suburbs and to the open country. Such transference compels the workers to travel long distances to and from their work, and compels them and their families to travel long distances if they wish to shop in town, to go to some place of entertainment, or to use the town schools for the children.

The working men's houses which have been built cost approximately £1,000, although the ground itself constitutes a negligible item. It follows that, if an economic rent is charged, it should come to at least £60 per annum, or to, let us say, 24s. per week. That price in itself is far too high in view of the fact that the majority of workers pay only about one-third as much at present. In addition to a trebled rent the workmen's budget would be very seriously affected by the doubling and trebling of the charges for travelling by railway, tramway, or motor-

## The Institution of Sanitary Engineers.

THE annual meeting of the Institution of Sanitary Engineers was opened on the morning of June 3 at the Holborn Restaurant, W. After some preliminary business Mr. Nandy S. Hoskins gave a brief presidential address. In its younger days the Institution had, he said, admitted as members men who were not fully qualified to the title of "Sanitary Engineer." It was, and is now, a common practice for plumbers and jobbing builders to add to their many qualifications that of "Sanitary Engineer," although their knowledge of engineering does not entitle them to it. Unfortunately the sole object of the promoters twenty-six years ago was not the welfare of the sanitary engineering profession; pecuniary interests were also involved. Steady and judicious weeding therefore had to be resorted to later. The Articles of Association were subsequently revised in order to promote professional knowledge and to inculcate sound principles in the engineers of the rising generation. Thanks to the indefatigable work of a few ardent members, the status of the members to-day is vastly improved and the membership is steadily increasing. The Council having no doubt in their minds as to the qualifications necessary are particularly careful to admit only those who are fully qualified either by works performed or by examination. Their profession embraced such works as sewerage and sewage disposal, water supply, sanitary construction of buildings, roads and footways, disposal of house refuse, &c. A good knowledge of the building trades was essential—not as a skilful workman but as one qualified to design as well direct sanitary engineering work. Above all he must be a good draughtsman and able to estimate the cost of work. A man who cannot put a scheme on paper is not an engineer whatever qualifications he may hold. He should know, said Mr. Hoskins in conclusion, when and how to make judicious variations and labour-saving short cuts, and this can only be learnt from experience, either his own or some other person's.

On the conclusion of the presidential remarks a paper was read by Mr. T. J. Moss-Flower entitled "Hindrances to Sanitary Reform."

A joint vote of thanks both to the president and to Mr. Moss-Flower was proposed by Major Martin and seconded by Mrs. Clouesley Brereton. It was carried unanimously.

After an informal luncheon in the Holborn Restaurant the members paid visits to Manor Farm Dairy, Highgate, and the College Farm Dairy at Finchley.

On Saturday, June 4, the second day of the meeting, a visit was paid to the Swanscombe Works of the Associated Portland Cement Manufacturers, and in the afternoon to the L.C.C. Northern Outfall Works at Beckton.

THE Whitley and Monkseaton War Memorial Committee have decided to erect a permanent memorial on the Links, opposite the entrance to the promenade, from a design provided by Messrs. Harrison, Ash & Blythe, architects, Newcastle, at a cost of not more than £1,500.



bus, which has taken place, partly owing to the increased wages demanded by the railwaymen and other transport workers, and partly to the quadrupled price of coal. In a recent issue of "The Democrat" Mr. Mark Harris stated, with refreshing candour and entire justification:—

"It is ridiculous for the Miners' Federation to assert that the advances they have received have been taken out of profits. The miners' increases have been taken out of the pockets of the consumer, and in Britain alone there are 42,000,000 consumers, 40,000,000 of whom belong to the working class, and who are being victimised just as surely as their richer brethren. The action of the miners has not only increased the discomfort of the people and jeopardised their health, it has increased the cost of production and the corresponding difficulty of selling abroad sufficient manufactured goods to pay for the food the people must import. . . .

"The railwaymen have been more open in their attacks upon the pockets of the rest of the community. Members of their executive quite frankly emphasise their intention to make the public pay, and, with the aid of the Government, they have carried out their intentions. Here there has been little subterfuge. Quite openly the National Union of Railwaymen has gone out to get the money, knowing all the time that, so far as passenger traffic was concerned, 80 per cent. of it would be paid by their fellow-workers, and that, indirectly, the whole of the charges for the transit of goods would be paid by the same class. . . .

"Miners and railwaymen themselves are very largely responsible for the high prices that prevail. They must realise also that the garden city will be an impossibility for the poor man if the poor man has to pay anything up to 25 per cent. of his wages for his transport between the garden city and the place where he works. . . .

"One immediate effect of the higher rates will be to drive the worker from the suburbs into the city where his work lies. No more wide breathing spaces for his children, no more pleasant bits of garden and daily association with Nature for him. He must forgo all this and crowd his family and his household goods into already congested areas. He must do this because the railways are run in the interests of a class and not in the interests of the whole community. . . . If any strike is justifiable it would be one of all railway users. Every man and every woman who uses the railway would be justified in staying at home until the railway workers themselves were put into the same position in respect of travelling as every other member of the community occupies. No class has any right to exploit any other class. Privileges should be abolished. Miners should pay for their coal and railwaymen for their travelling and for the travelling of their families. It should no longer be possible for miners to waste coal because it comes to them cheaply, or for well-paid railway employees, travelling free, to crowd out those who have paid for their tickets. . . .

"At one time the people hoped many things from political action. To-day they are beginning to fear that the party they had looked to has sacrificed the general interests of the ordinary workers and of the middle-classes for the particular interests of the Miners' Federation and the National Union of Railwaymen."

The miners form the largest and the most powerful body of the labour army by reason of their strong organisation, their large numbers, the vastness of their funds, and the power they have over all other industries owing to the fact that they control the basic commodity of the nation. The miners enjoy the greatest prestige among the organised workers in general, and not unnaturally their policy has been followed by the other sections of the trade-union army. Very likely the policy of restricting output and increasing wages in the most unreasonable manner, which has been pursued by the builders' workers with such lamentable results, was adopted in consequence of the example set to them by the Miners' Federation. . . .

Among recent wills are those of Mr. John H. Margetts, of Reading, builder, £37,367, and Mr. William Payne, of South Shields, £16,738.

## Standardisation in American House Construction.\*

STANDARDISATION as applied to building construction eliminates duplication of effort and saves valuable time and much money all along the line.

Standardisation permits manufacture on a quantity basis and reduces machine costs, both at the factory and at the site of erection, thus freeing labour for more essential productivity.

Standardisation makes it possible to produce during the slack season, thereby tending to prevent seasonal unemployment, decreasing labour turnover, and facilitating prompt delivery of materials when needed.

Standardisation reduces maintenance costs and makes repair easier.

Standardisation makes possible closer co-operation between architects and engineers and the men who produce, distribute, and install material and equipment.

Standardisation assures a more uniform degree of safety during and after construction.

Standardisation increases efficiency and productivity, and makes for conservation of our human and natural resources.

I wish to direct attention particularly to standardisation of parts in relation to the elevations of American standards of living and American standards of building construction, and also as applied to the increased productivity of American industry. We have already heard about some of these factors, particularly in the lumber industry, in which, through long-established standardisation of parts, production proceeds all winter for work which will go on during the most active construction months of the year. Thus the working men in that industry are able to labour all the year round.

The same thing applied in the production of mill-work. In this industry progressive manufacturers have so standardised their product that they can be preparing all winter for the construction season ahead. Thus we also have the materials when we need them.

In the clay-working industries a uniform national standard of size for brick has recently been adopted. When brick manufacturers, like the manufacturers of wall and floor tiles, burn their product in what are known as continuous kilns the process may go on all winter, with great conservation of fuel; and bricks of practically the same size will be available everywhere.

In the slate industry, for which I have been doing standardisation work, we have recently so standardised all the slabs and parts which go to make up enclosures, shower-baths, stairways, and other features for which structural slate is used that on two small sheets of paper can now be shown the various but comparatively few parts which are required to make up over 130 fixtures of any size or combination likely to be desired. The working men in that industry, who until now have had to go two and three days a week, sometimes whole weeks, in the winter without employment, will hereafter be employed all winter.

Through standardisation in size and thickness of roofing slate vast quantities may now be produced in advance and stored on the "banks" ready for shipment as required. These are mentioned to show some of the effects of standardisation on productivity in the American building materials industry.

When we consider standardisation as applied to the structures themselves we think of it either in connection with the construction of large developments or of individual buildings, and it is the latter that will be briefly referred to without going into the more obvious economies of quantity production. In discussing the individual unit we must take up the standardisation of plan as parts and the standardisation of materials as parts. In considering materials we should draw upon

\* Extract from an address, by Mr. D. Knickerbocker Boyd, F.A.I.A., before a Housing Conference in Bridgeport, U.S.A.





Central Hall, Westminster.

*Architects:* Lanchester and Rickards, F.F.R.I.B.A.

*Concrete Engineers:* Trussed Concrete Steel Co. Ltd.

## WHAT ARE THE QUALIFICATIONS OF A DESIGNER?

THE mere ability to draw is not the sole qualification of an Architect.

It requires careful education, backed up by an extensive training and experience, to become a successful designer.

Likewise the Reinforced Concrete Engineer must have years of education and experience before he can prepare an efficient and economical design.

There is a distinct advantage in employing a firm of specialists equipped with a staff of expert designers having thousands of structures already to their credit.

The accumulated knowledge gained by such a firm must prove beneficial to architects employing them as consultants, even as the progressive experience of the architect proves beneficial to his client.

# The Trussed Concrete Steel Co. Ltd.

125 Truscon House, Cranley Gardens, S.W. 7.

the experience of architects and engineers and of technical experts in all of the industries, and we should co-operate with them and with fire-prevention experts and other authorities in determining acceptable standards to be followed with respect to each material. We should take advantage of every economy that we can, while making the most appropriate use of every known good building material.

In doing this we, fortunately, can call upon some of the great organisations in this country, such as the National Fire Protection Association, the American Society for Testing Materials, the Underwriters' Laboratories, the National Board of Fire Underwriters, the National Safety Council, and the U.S. Bureau of Standards. The U.S. Bureau of Standards is performing a wonderful investigational service all the time. It is collaborating with all the others in research work that cannot fail to be of the greatest help. It has, however, limitations, chiefly financial, through lack of appreciative understanding of the great value of its work. Other fine organisations have important work under way. One is the Society of Illuminating Engineers, another is the Bureau of Research of the American Society of Heating and Ventilating Engineers at the Bureau of Mines at Pittsburgh. They are jointly conducting investigations on thermal conductivity, on insulation, on condensation, on air leakage, and on almost every other factor which will assist in deciding upon the materials and methods for enclosure of our buildings from the elements.

But in all of the work referred to there is never enough emphasis laid upon the real economic problems of the small house owner.

Now it seems to me regarding this matter that we ought to take into consideration all these facts and assist in co-ordinating and humanizing this work. The National Housing Association itself would have a very distinct function to perform if it could, in doing this, formulate a set of standards for buildings for the working men of this country. Let this Association, if it will, appoint a Committee on Standards of Construction for small houses for the American people and promulgate a standard section of a building code with respect to these houses, separating them from all other kinds of building construction. Instead of the best technical thought of the country being devoted so exclusively to making good construction better, let more time be devoted to making poor construction good. The worker's house is the place to begin; for it certainly is in need of consideration throughout this country.

One of the defects in building codes is that in some ways we have been extravagant in the use of our good building materials, thus promoting poor construction where choice is permissible. Therefore, if we base all materials on safe practice and performance and formulate standards accordingly, we ought to be able to make very effective economies along the line of good construction and yet eliminate sub-standard construction almost everywhere.

We must not, however, allow ourselves to border on an unsafe minimum of structural requirements, an unsafe minimum of thickness of materials to keep out the weather, and an unsafe minimum of protection to the owners of homes against loss of life and property by fire.

Now in regard to standards in plan, arrangement, light, sanitation, and other factors affecting the amenities of life; under the guidance of the Secretary of the National Housing Association, a committee of architects, engineers, housing specialists, and others worked out an excellent set of skeleton standards with the Department of Labour for War Housing Construction. Later the U.S. Housing Corporation developed a valuable series of standard specifications and details for the construction of working-men's homes. That was in the early stages of the War, and later all of these standards were referred to the War Industries Board. This body, with which it was my privilege to serve as chief of the Materials Information Section of the U.S. Housing Corporation, took up the standardisation of one factor and one material after

another and issued various standards as Government war measure.

It was still engaged on that work when the Armistice was signed; but in spite of that fact it completed some of its unfinished standards, which some day will become available in a publication for very limited distribution. Among these are standard specifications and details for carpentry and millwork, lighting fixtures, hardware, and other material. They were used in ordering materials required by the Government in its housing and war construction. With these in the hands of the industries of the country we could order by telegraph anywhere and get exactly what we wanted. It was a very simple procedure.

My idea is that the National Housing Association might take up these standards and, through the new Committee proposed, promulgate them and formulate the other standards which I have suggested. This should be undertaken as a separate small-house problem distinct from all usual building construction as embodied in the building codes of our cities, and in new codes which are being prepared by many of our States. The National Housing Association should, it seems to me, do these things; namely, work on standardisation of parts, and on the development of types for working-men's houses, and should father a movement to co-ordinate all investigational activities affecting the construction of small houses to ensure permanency, lessen the cost of upkeep, and make for the safety, health, and comfort of all occupants.

Let us take the lead in reducing upkeep, insurance and other preventable charges. If we can stop the everlasting annual drain on the occupant's pocket-book caused by improper construction of his building in the beginning, we will in the end bring about a real elevation of American standards of living.

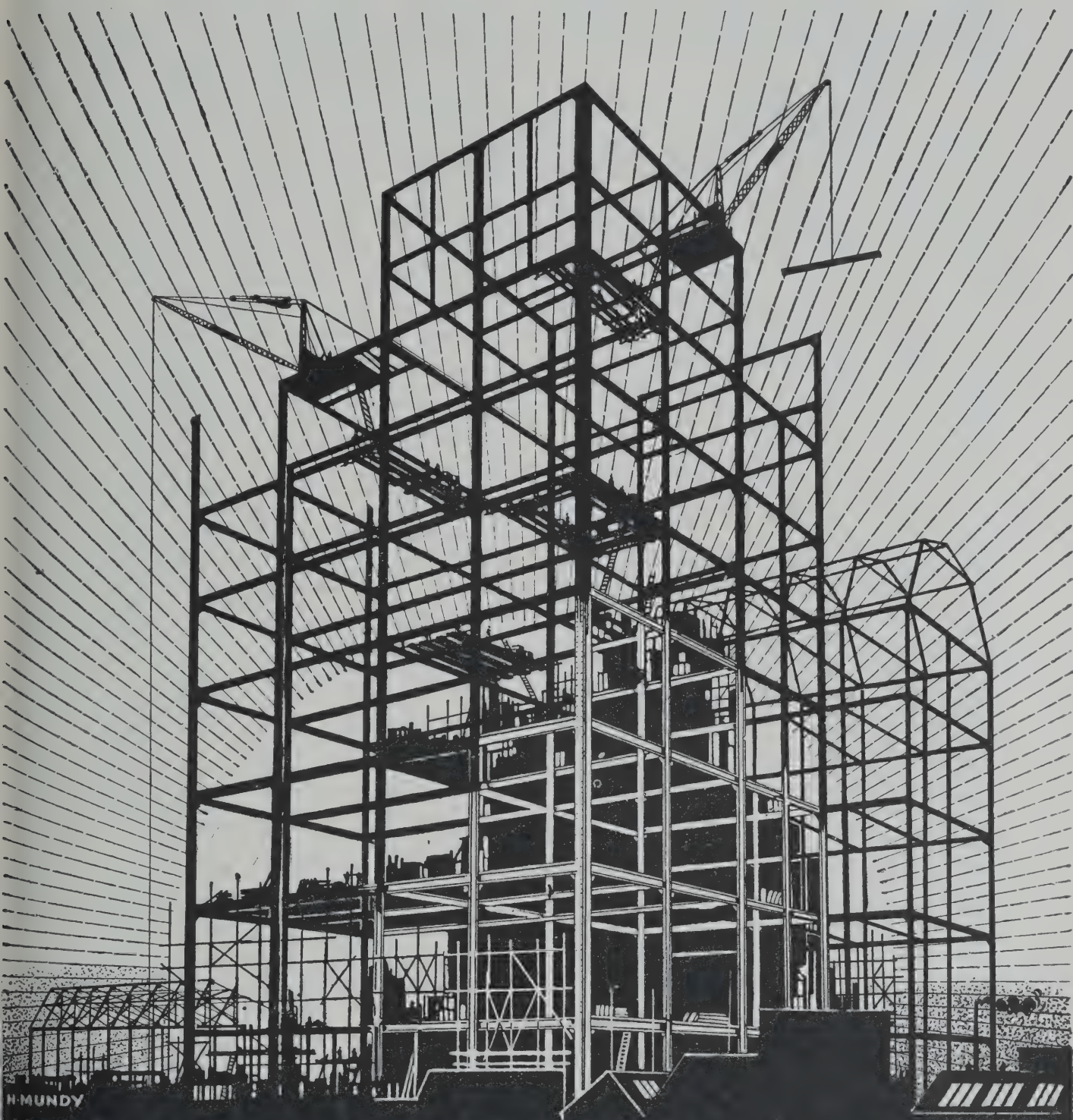
By improving the standards of building construction in general, and through standardisation of parts helping to make for greater productivity in American industry we will enable the working men of the country to have contentment and better health, to put in more hours and get more money.

THE Office of Works have purchased from the Duke of Devonshire the famous iron gates, which contrived to give some air of distinction to the commonplace brick wall shielding Devonshire House from Piccadilly. They are to be re-erected in the Green Park at the expense of the Queen Victoria Memorial Fund. The gates formerly bore the Perceval Arms, and belonged to a house of the second Lord Egmont at Turnham Green, which was sold to Lord Heathfield, a distinguished General. After his death in 1790 the house at Turnham Green fell into neglect, and was pulled down in 1838, when the gates were bought by the Duke of Devonshire and set up at his mansion in Chiswick, where they remained until they were brought in 1897 to Piccadilly.

THE Royal Sanitary Institute will hold its thirty-second Congress and Health Exhibition at Folkestone from June 2 to 25, under the presidency of Lord Radnor. Delegates to the number of over 500 have been appointed to represent various Ministries, the Office of Works, the Scottish Board of Health, Denmark, France, the Dominions, and 30 Health Authorities. The president will deliver at the Town Hall on Monday, June 20, at 5 p.m., an inaugural address. Various sectional discussions will be held. The Health Exhibition in the Drill Hall will be opened on June 20 at 3 p.m. by the Mayor of Folkestone. A number of excursions arranged include a day trip to Boulogne.

THE new Southwark Bridge was opened by the King and Queen on the 6th inst. The previous bridge, built from the designs of Rennie at a cost of £800,000, was opened in 1819. Work on the bridge, now open to the public, was begun in 1913, and was interrupted in 1917 by order of the Government owing to the war. The bridge has five arches and between the parapets is 55 feet wide, the roadway being 35 feet wide. The cost of construction has been about £375,000, provided out of the trust funds managed by the Bridge House Estates Committee of the Corporation of London. The engineers were Messrs. Mott, Hay, & Anderson; the architects, Messrs. Sir Ernest George, R.A., and Yeates; the surveyors, Sir Alex. Stenning & Partners; and the contractors, Messrs. Sir William Arrol & Co., Ltd.





# REDPATH BROWN & CO., LTD.

## CONSTRUCTIONAL ENGINEERS

### WORKS AND STOCKYARDS

LONDON  
Riverside Works,  
East Greenwich S.E.

MANCHESTER  
Trafford Park.

BIRMINGHAM  
Office: 47, Temple Row.

EDINBURGH  
St Andrew Steel Works.  
NEWCASTLE-ON-TYNE  
Milburn House.

GLASGOW  
Pinkston.  
Office 19, Waterloo St.

London City Office:- 3, LAURENCE POUNTNEY HILL E.C.4



## Competition News.

MEMBERS and Licentiatees of the Royal Institute of British Architects must not take part in the Hereford War Memorial Competition because the conditions are not in accordance with the published regulations of the Royal Institute for Architectural Competitions.

### General.

SIR JOHN JAMES BURNET, A.R.A., R.S.A., LL.D., is to be invited by the Glasgow War Memorial Committee to design the cenotaph which it is proposed to erect in George Square, Glasgow.

THE tender of £67,500 by Sir William Arrol & Co. (Limited), for the construction of the new swing bridge at Inchinnan has been accepted by the County Council of Renfrew. The original estimated cost of the new bridge was £54,000.

GOLDINGS PARK, Basingstoke, was opened last week as a War Memorial. The park is about 15 acres in extent, and has been laid out according to a plan drawn by Mr. J. Arthur Smith, F.R.I.B.A., who is also the honorary architect of the proposed memorial gateway.

MR. FRANK VERITY is the architect for the proposed rebuilding of the Empire Theatre in Leicester Square, W., at an estimated cost of £175,000. It was announced last week that the theatre has been bought by Mr. Hamilton Baines, managing-director of the Bristol Theatre Royal, on behalf of a West of England syndicate.

AT the last meeting of Wrexham Town Council, Professor L. Patrick Abercrombie, A.R.I.B.A., of Liverpool, submitted a scheme showing a suggested division of the town into residential, industrial, etc., areas, and the list of street improvements which the borough surveyor suggested might be embodied in a town-planning scheme. The scheme was adopted.

THE Dean of Westminster has written to the Mayor of Westminster stating that, in view of the relations between Westminster Abbey and the Mayor and Corporation of Westminster, which are both historically interesting and in practice most friendly and cordial, he intends to assign a particular stall on the north side of the Choir of the Abbey for the occupation of the Mayor on such occasions as he may visit the Abbey. The Mayor and a deputation representing the Council will attend morning service at the Abbey on Hospital Sunday, June 26.

GREENOCK CORPORATION have submitted a scheme to the Scottish Board of Health for the erection of 1,200 houses on the ground already acquired in the Kip Valley. The scheme was prepared and submitted to the Law and Finance Committee of the Corporation by a London firm of builders and financiers, who, it is stated, are likely to co-operate in the work. The houses are to be built of stone instead of brick, and it is understood that the whole undertaking will cost nearly £1,000,000.

THE design hitherto fixed upon for the war memorial in Leamington has been abandoned owing to the opposition of the townspeople, and it has been decided to accept a design by Mr. Albert Toft, who was the sculptor of the statue of Queen Victoria erected near the Town Hall. It consists of the representation, in bronze, of a British soldier, standing with arms reversed. The figure itself is 7 foot high, and is placed on a 10-foot pedestal of Portland stone. It will be erected in Euston Place.

A CRICKET match between teams representing the R.I.B.A. and the Architectural Association will take place on the Architectural Association ground at Elstree, on Wednesday, June 29. Mr. W. Curtis Green, F.R.I.B.A., will captain the R.I.B.A. eleven. Members and Students who are free to play for the Royal Institute are requested to send names as soon as possible to the Secretary, so as to enable Mr. Curtis Green to select the strongest possible side. It will be remembered that in the last of these matches, in the year 1913, the Architectural Association won by seventeen runs.

THE Islington Borough Council, at their meeting on the 2nd inst., adopted a modified scheme for the erection of a new town hall and municipal buildings. At the beginning of this year the Council failed to obtain the sanction of the London County Council to the borrowing of £553,000 for the purpose. Mr. E. C. P. Monson, F.R.I.B.A., F.S.I., the architect, thereupon prepared an amended scheme estimated to cost £330,000, made up as follows: Cost of building, £290,000; alteration of roads, £2,000; furniture and fittings, £18,500; architect's fees, £15,500; quantity surveyor's fees,

£3,000; and clerks of works' wages, £1,000. This modified scheme for the erection of municipal buildings on the Tyndale Place site is to be submitted to the London County Council.

MEMBERS of the R.I.B.A. will regret to learn that the President is in mourning for his mother, Mrs. Thomas Simpson, who passed away last week at her residence at Brighton, in the ninety-first year of her age. The venerable lady had borne well her burden of years, retaining until quite lately full possession of her faculties, both mental and physical. The funeral took place at Brighton on Wednesday, the 8th instant. It is interesting to mention that Mrs. Simpson was the widow of an architect, and of her four sons two are architects—Mr. John W. Simpson and Mr. Gilbert Simpson, the latter succeeding his father as architect to the Brighton Educational Authority and other bodies. Mr. Thomas Simpson, the father, was the successor of his uncle, a very well-known architect in his day. The other two sons are both doctors, one the senior consulting Surgeon to the Sheffield Royal Hospital, the other in practice at Hove.

## Housing News.

THE Exeter City Council last week adopted a recommendation for the erection of 160 houses in Bridle Lane.

HALESOWEN Rural Council on the 1st inst. by a majority accepted a recommendation that the tender of Housing (Limited) for the erection of sixty-eight houses on the Hill and Cakemore site at a cost of £49,578, and the tender of Messrs. William Moss & Sons for the erection of 120 houses on the same site, subject to a satisfactory reduction to the approval of the Ministry of Health, be accepted.

THE Housing Committee of the Newcastle Corporation report that they have appointed a Clerk of Works for the Walker Housing Estate at a salary of £8 per week, and a quantity surveyor in the office of the housing architect at a salary of £275 per annum. These appointments will be subject to determination upon short notice. The salaries will rank for grant-in-aid from Government funds in relief of expenditure upon approved housing schemes in excess of the product of a rate of 1d. in the £.

CHESTERFIELD Corporation Housing Committee have accepted tenders of Messrs. Smith & Hawley, Sheffield, aggregating £47,085 in three contracts for the erection of sixty-one houses on St. Augustine's Road (No. 2 site), off Derby Road. This works out at £771 per house. The tenders are based on wages of 2s. 4d. per hour for craftsmen and 2s. 1d. for labourers. The Committee recommend that the practice of distempering walls after completion of houses be abandoned forthwith, at an estimated saving of £23 18s. 9d. per house.

A SPECIAL committee of Greenock Corporation was appointed some time ago to report on the advisability of adopting direct labour in connection with local house-building schemes. A deputation visited several English towns, and a report was submitted to the Corporation. This report was not signed by all the members of the deputation, and two members intimated that they could not accept the recommendations. The majority are in favour of direct labour, and recommend that a commencement should be made with the erection of 200 houses under this system. One member in a private report disagrees with the findings of the majority, and says that the time is inopportune.

## Trade Notes.

PHOENIX Engineering Co., Ltd., Chard, Somerset, will be exhibiting as usual at the Royal Agricultural Society of England Show, Derby. Their exhibit will include a long range of their well-known "Floodgate" and Diaphragm Hand-pumps, which are suitable for dealing with clean, dirty or sandy water, liquid manure, cesspool work, irrigation, &c., in from quantities of from 1,000 to 6,000 gallons per hour. These pumps are arranged for lift only or for lift and force. They will also be showing tar-spraying machines for road work or for paths, also tar, pitch, and bitumen boilers for general work on estates, &c.

ON Saturday last, June 4, the staff of Tredegar's, Ltd., decorators and electrical engineers, of 5, 7 and 9 Brook Street, W. 1, entertained the directors of the firm to a motor-drive through the most charming scenery of Surrey, proceeding via Ewell to Box Hill. Tea was taken at the "Star and Garter," the journey being continued to Shere. The journey home was made via Guildford, Ripley and Kingston, arriving home about 9.30, the run being of a most pleasant and cordial nature.



## CONTENTS.

The Royal West of England Academy School of Architecture . . . . .	PAGE 411	London Art Galleries : Art News of To-day . . . . .	PAGE 415
The Bristol Ceremonies . . . . .	412	Modern Craftsmen.—II. Marcel Helsen . . . . .	416
Illustrations . . . . .	413	Architects' Fees on Housing Schemes . . . . .	417
Notes and Comments . . . . .	413	Some Fashions in Architecture . . . . .	418
Royal Institute of British Architects . . . . .	414	New Books . . . . .	419
Correspondence . . . . .	414	The Economic Unit Principle Applied to Large Cities . . . . .	420
Forthcoming Events . . . . .	414	Presentation to the President of the R.I.B.A. . . . .	422
		Berks, Bucks, and Oxon Architectural Association . . . . .	422

## The Royal West of England Academy School of Architecture.

LAST Friday's ceremony at Bristol, when the Prince of Wales formally opened the Royal West of England School of Architecture, marks a most important development in architectural education in England. The immense success of the Architectural Association School as a means of focussing enthusiasm and affording educational facilities for the architects of to-morrow, and the talk of similar facilities in the provinces, led to some informal meetings at Bristol, and eventually to the production of a well-thought-out scheme for the foundation of a West of England School, in which the methods found so successful in London could be followed. Mr. Maurice Webb was alluded to in a very pleasant dinner, held in the Red Lodge, as the father of the scheme, but the definite parentage of the newly-born infant is evidently a subject which it might be indiscreet to investigate. The main fact is that the infant has been born and is a remarkably fine child who will not lack friends and sponsors. Like a child of illustrious and royal parentage, he will find both friends and distinguished supporters, and we look forward to seeing him in the days of manhood holding autocratic sway over the Western counties, while the students taught may be successful competitors when matched against those of the Architectural Association itself.

The Prince of Wales, in a well-turned speech, alluded to two important points : the first, that architects alone could ensure economy in building—a point brought home to him by his experiences on his own estates,—and the second, the great necessity of building in such a manner as to secure the beauty of the West Country from desecration.

The new School has been made possible by the collaboration of the Royal West of England Academy—an institution which has been prominently associated with art and with the city of Bristol, and which has accepted responsibility for the maintenance and financial support of the new School. The Bristol Society of Architects, which is junior only to the Royal Institute of British Architects and the Liverpool Society, has given its support and help to the new School, which thus rests on a firm triple basis of support. Its control is vested in a Council of nine, all of them members of the Bristol Society of Architects, its President being Dame Janet Stancombe Wills, the President of the West of England Academy, while its Vice-President and Chairman of Council is the President of the Bristol Society of Architects, F. C. Lawrence, and its Advisory Director of Education Mr. Robert Atkinson. As master, the School has been fortunate in securing the services of Mr. F. Chalton Bradshaw, who won the British Prix de Rome. The curriculum is to be practically the same as that of the Architectural Association, and at present it will be open only for two days each week, from two o'clock to nine o'clock, with a third evening from six o'clock to nine o'clock for purposes of private study. Like the Architectural Association School,

it will be controlled, and its curriculum fixed, by practising architects; but, while there will be a pre-arranged programme of study, arrangements will be made to meet the varying requirements of individual students. The fees for ordinary students will be five guineas a term, but amateurs desirous of studying architecture will be admitted on special terms, and entrance scholarships will be awarded entitling students to a year's free tuition.

We are told that there is one marked difference between the average student admitted and those of the Architectural Association School. The latter usually take the School prior to entering an office, while in the case of the Bristol School the students are practically all men who are in offices. We are informed that, while the average quality of the design produced in London may be higher, most of the Bristol students could outdistance those of the Architectural Association in writing specifications of their schemes and preparing such details as are requisite for the actual execution of work designed.

It is by these comparisons that advantage may be gained by the contrast of varying methods, and we may gradually find out what is most essential and conducive for progress, for there is no rigid and alternate rule or standard which can be laid down. The best system of education is probably that which gives the individual student most freedom, for it is in that direction that it will be found possible to create and sustain individual enthusiasm which will remain till the end of time—the one essential factor necessary.

The student's taste may not be sound, but there should be no forbidden fruit, as it is only by experience that we can judge of good or evil. Some of us are mentally so constituted that we must explore many trails before finding the right one; others have no predilection for any but the direct way. But to whichever of these two classes we belong, we shall accomplish nothing for ourselves and our fellows if we do not enjoy every inch of the way we elect to follow.

It is, we believe, because the Architectural Association has recognised this that it has outdistanced other Schools in the results produced. The student learns more from his fellows than can ever be taught him by any master, and in his turn he hands on the knowledge he has gained to others. To the average student of the Association that body is a free republic of men who are pursuing a chosen pursuit, and not a School in the old sense of the word. Enthusiasm can compass all that is possible in the world so long as it is tintured by judgment and appreciation of the work of others, and by the common sense which alone teaches us the relative values of the issues which surround us.

The guests of the Bristol Society of Architects were most hospitably entertained, both at the various functions which marked the official opening of the School and at the very pleasant dinner held in the oak-panelled room of the Red Lodge, an exquisite



example of the architectural treasures possessed by the city of Bristol. The informal and unreported speeches made at the conclusion of that dinner, especially those of Mr. Lawrence and Sir Frank Wills, did credit to the profession to which they belong, and to which their conduct does honour.

Sir Frank emphasised the all-important truth that it is on the conduct of an architect as a man that his greatest reputation will depend, and on his character as the honest and sincere adviser of his clients that he must stand or fall, while Mr. Lawrence urged

the importance of sound and honest work rather than sensational attempts to attract the attention of the public. Some of the allusions made convinced us that we should have much better after-dinner speaking were reporters excluded from our midst—a reform we should like to bring about.

We look forward with confident anticipation to the harvest which should succeed the foundation of the Bristol School, and shall be delighted to give the freedom of our pages to illustrating the best of its future work.

## The Bristol Ceremonies.

AFTER the brief ceremony of the afternoon, when the Prince of Wales (who was welcomed by Sir Aston Webb, P.R.A., K.C.V.O.) opened the new Architectural School, a dinner was given at the Red Lodge by the President and Council of the Bristol Society of Architects. The President (Mr. G. C. Lawrence, A.R.I.B.A.) was in the chair, and those present included Sir Frank Wills, F.R.I.B.A., Professor Beresford Pite, Messrs. J. W. Simpson, W. G. Newton, M.A. (President of the Architectural Association), G. Gilbert Scott, A.R.A. (past-President of the Architectural Association), Maurice Webb, D.S.O., M.C., M.A., F.R.I.B.A., E. W. Savory, Herbert W. Wills, F.R.I.B.A. (London), W. T. Plume (London), Graham C. Awdry, F.R.I.B.A., G. H. Oatley, F.R.I.B.A., Peter Fry, C.M.G., D.S.O., F.R.I.B.A., P. R. Yerbury. (Secretary, Architectural Association), T. H. Weston, F.R.I.B.A., B. F. Wakefield, F.R.I.B.A., S. S. Reay, F.R.I.B.A., A. B. Botterill, A.R.I.B.A., H. Chalton Bradshaw, A.R.I.B.A., W. J. Stenner, A.R.I.B.A. (Hon. Secretary of the Bristol Society), &c., &c.

After the local toasts, which included "The Prince of Wales,"

The Chairman gave "Our friends from London." They felt that the presence of Mr. Simpson was a great honour. His great ability and organising power had been a conspicuous feature of his year of office. They owed a great deal also to Mr. Maurice Webb, through whom they had ventured upon the foundation of the Bristol School of Architecture.

Mr. Simpson, in responding, remarked that their visit to Bristol had been on a very interesting occasion. He congratulated the Bristol architects upon the fact that their new venture was launched so successfully, and that they had had the presence at the ceremony during the afternoon of H.R.H. the Prince of Wales. They were sorry that Sir Aston Webb had been obliged to return to London, but he had that gentleman's permission to say that he joined in the congratulations that he had just expressed. Unfortunately money was rather scarce at present, but the need of new buildings was leaping up rapidly. When the money market was easier there would be a great demand for architects, and the students at the new Bristol School would be required. There was a congestion of students in all professions just now, which was natural in the general conditions prevailing throughout the country. But there had been no students for several years, and he had no fear with regard to the future of the profession. (Hear, hear.)

Mr. Newton proposed "Success to the Bristol School of Architecture," which was supported by Mr. Maurice Webb, and responded to by Mr. H. C. Bradshaw.

The President remarked that the object of the School was not to rush students through a course of so many years and so many examinations, but to so teach them that they would be able to distinguish between good and evil—to make them men with high thoughts and aspirations, and men able to do good work.

Sir Frank Wills proposed "The health of the President." He hoped that one result of the School opened that day would be the production of true architects, men who would become noted by true and honest dealing with all whom they came into contact as clients, men who would be true to the principles of all that was

right. Cleverness was not everything. Honesty was the thing that would stand the test of time. When people went to an architect they should be sure of obtaining best and straightforward dealing and advice. That was the aim of the Bristol architects, and of none more than their President.

In the evening a reception was held at the Royal West of England Academy. The guests were received by Dame Janet Stancombe Wills, Mr. J. C. Lawrence, President of the Bristol Society of Architects, and Mr. J. W. Simpson, President of the Royal Institute of British Architects. On the walls of the Winterstoke Gallery, in which the subsequent meeting was held, were numerous specimens of the work of students from the Association's School, London, and the Bristol School. Dame Janet Wills presided over a large attendance, and amongst the several speakers was Professor Beresford Pite, of the Royal College of Arts, who said it had been recently decided that preparation for the final course should be left in the hands of the recognised schools on architecture, in the same way in which the preparation for the intermediate examination had been. This meant that the Bristol School could mark out its own line of special study and develop its School on local architectural character. Such character could be seen in the Fort of Edinburgh and Bath, and that architectural character capable of development at the Bristol School was an effective means to that end. In the beautifying of Bristol its local characteristics, needs and ideals could be cultivated and expressed.

NOTE.—We obtained the above account from a Bristol paper, but as no reporter was present at the Dinner it is entirely unofficial and represents either an unauthorised leakage, or is the result of thought-transference. In either case it fails to convey the singularly pleasant impression made on the guests of the Bristol Society by the kindness of their entertainers, while the subtle inwardness of many of the speakers' remarks has been entirely lost. We are convinced that only the absence of reporters is needed to induce architects to surpass the eloquence of the great orators of history, while, unsuspected by their clients, they may possess the sense of humour of Sir Harry Lauder.

AMONG the petitioners to the Glasgow Dean of Guild Court were the Glasgow University Court, who asked that lining should be granted them for the erection of a building to be used as a National History Department, and the Corporation of Glasgow for consent to their Dramoyne housing scheme. Both applications were granted. The addition to the University will be a dignified and substantial building estimated to cost about £130,000. It is to be erected at the west side of the existing buildings.

THE death has occurred of Mr. Arthur Green, who for the past seventeen years has acted as clerk of works for the Liverpool Cathedral. Mr. Green, who was fifty-six years of age, was a native of Redford, Nottinghamshire, and was connected with the building of several important churches, including a family church at Eccleston for the late Duke of Westminster, Holy Trinity Church, Kensington Gore, and a church at Hoarcross, Staffordshire, for Mrs. Meynell Ingram. When he came to Liverpool to take up the post of clerk of the works for the Cathedral he was with Mr. G. F. Bodley, R.A., with whom he had been associated for many years.









NE 17th, 1921.



ES at SUN RISING. WARWICKSHIRE.

E. Guy Dabner Architect

SCREENLESS PHOTO PROCESS, SPRAGUE-HAYCOCK (PRINTERS) LTD. 69 & 70, DEAN STREET, LONDON, W.1.

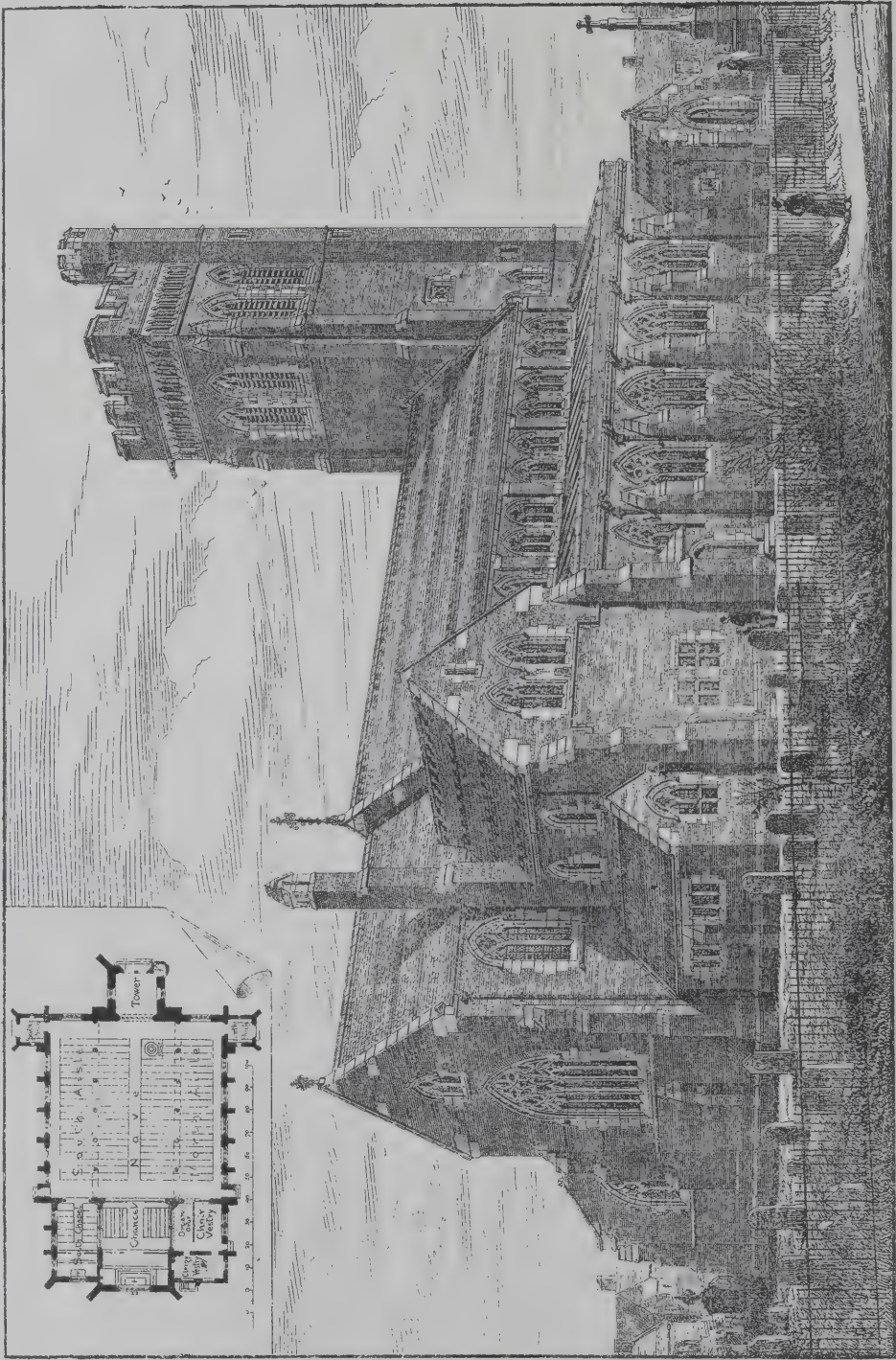
WARWICKSHIRE.

ECT.









FENTON

My friend's sketch, showing  
the church as it was  
before the restoration.  
By (see p. 17).

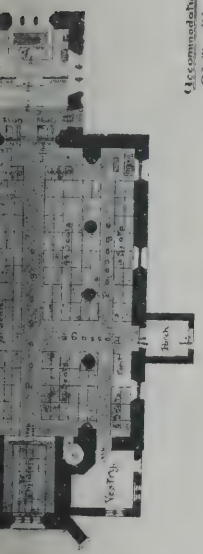
— \* — All Saints: —  
— Chebsey: —  
— Restoration. —







West Elevation.

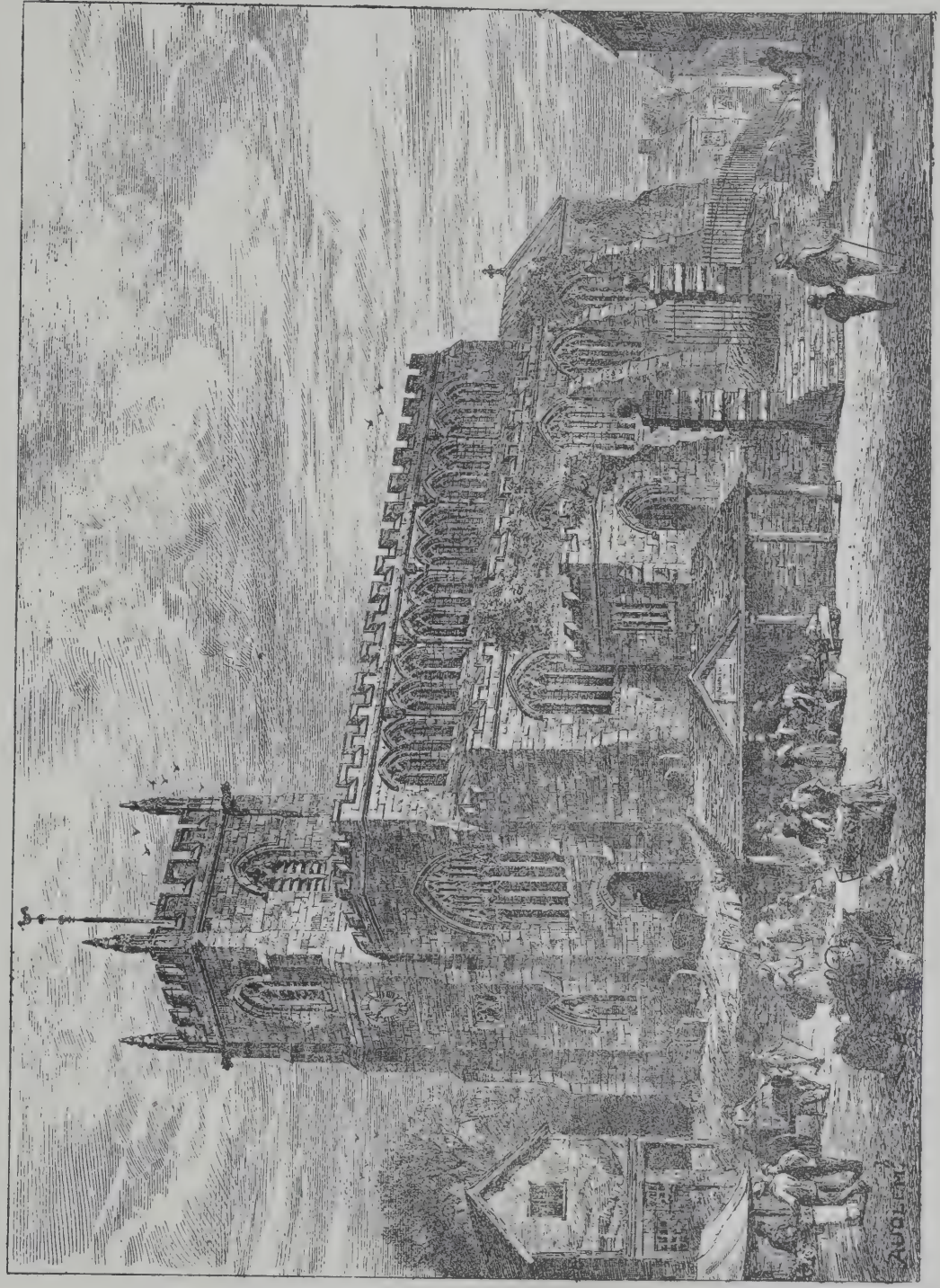


Plan.

Accommodation  
 Seats 100  
 Chancel 100  
 Choir 100



Section No. 120.  
 Looking West.  
 Scale 1/2 inch to 1 foot.











Old Bridge St.

Sketch  
London Museum  
1914



Old Bridge on Canal  
Chester.



Chester from Northgate Bridge.

Sketch on paper.

London Museum  
May 1914



The Old Bridge Chester

Sketch on paper.



17th, 1921.



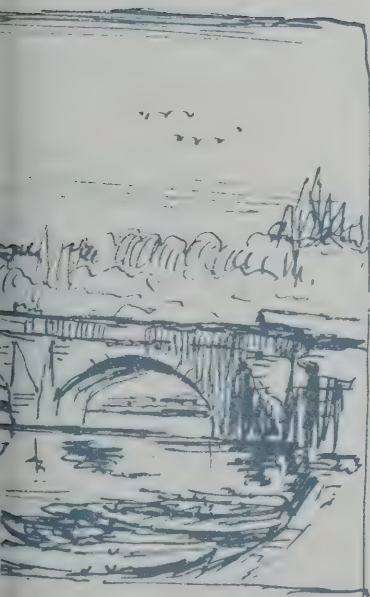
The Walls Chester.  
sketched on spot

Gordon Hemm  
19.



King Charles Tower

Chester



Gordon Hemm  
12 May 19



Chester Old Street.

Gordon Hemm







STOKE-ON-TRENT CEMETERY CHAPELS. The late CHARLES LYNAM, F.S.A., F.R.I.B.A., F.S.I., Architect.

### Illustrations.

COTTAGES AT SUN RISING, WARWICKSHIRE. E. GUY DAWBER, F.S.A., Architect. Royal Academy Exhibition, 1921.  
 CHURCH WORK. By the late CHARLES LYNAM, F.S.A., F.R.I.B.A., F.S.I.  
 SKETCHES OF CHESTER. By GORDON HEMM.

### Notes and Comments.

#### The late Charles Lynam, F.S.A., F.R.I.B.A., F.S.I.

WE illustrate some of the work of the late Charles Lynam, who was a Member of Council of the Royal Archaeological Institute and a Diocesan Architect under the Dilapidations Act of 1871, who was born in 1829, the son of George Lynam, architect, of Stoke-on-Trent, and was articled to W. W. Wardell, of Hampstead, and commenced practice in 1850. Mr. Lynam during a long and active professional career carried out the North Staffordshire Infirmary, the tile works of Minton, Hollins & Co., George Maw & Co., and Craven, Dunmill & Co., and restored over thirty churches, some of which we illustrate. His practice has also included the erection of Christ Church, Fenton, All Saints, Boothen, Stoke-on-Trent, and mission churches, poor law schools, infirmaries, baths, libraries, and houses.

He was a well-known surveyor, and acted as Town Surveyor of Stoke-on-Trent, while his labours in a literary direction have been extensive, largely consisting of researches into the architecture and archaeology of his native county. He was thus a man of manifold activities, who acquired a well-earned reputation in professional and public circles, and his death will be regretted by a very wide circle of friends and acquaintances.

#### Unification and Registration.

WE give a letter from Mr. Sydney Perks enclosing a manifesto signed by him and some of his colleagues on the subject of Unification and Registration. The signatories evidently object to the admission of a large number of outside architects to the R.I.B.A. unless such admission is coupled with a pledge of the immediate promotion of a measure of Registration. We have criticised the proposals of the R.I.B.A. Committee on other grounds, and are inclined to believe they would have been better limited to the amalgamation of the Institute and the Society,—a measure which we have always heartily approved of, and should like to see effected even at the price of considerable sacrifice were that necessary. And

our belief has been that such an amalgamation would have been best effected by admitting the Society as a fourth class of member, with power to pass into the other classes only through the ordinary channels. Such a solution would leave the members of the Society with the same status they have at present; and would imply neither inferiority or superiority, as compared with Fellows and Associates. But our criticism is one of detail only and we are quite prepared to accept the solutions arrived at by the Committee. As to Registration, is it not clear that the Society would only have entered into the present negotiations if assured that it was the purpose of the R.I.B.A. to promote a Registration Bill, and if so why should anyone object to the infinitely simpler issue of Unification being taken first?

We are in favour of an effort being made to pass a measure of Registration simply and solely because the great majority of architects believe in it, as the mediæval alchemists did in the existence of the Elixir Vitæ. We do not believe for a moment that it will be found possible to frame and pass a Bill which will be of much use to architects, in view of the strenuous opposition it will meet with and the difficulty of showing it to be necessary in the public interests. But if Registration comes and a measure is passed into law we believe architects will find their grievances as insistent as they are now. These grievances such as they are are best met by skill, competence, and knowledge possessed by individual architects, and depend very little on what can be done for them as a body by any measure which can be promoted.

#### Competitions.

WHAT has happened during the last fifty years in connection with Competitions shows us how little great apparent reforms may effect. In consequence of sustained agitation protests and representations, the procedure and conduct of competitions are now almost entirely regulated by the profession. The net result has been that though we are protected against the injustice of public



bodies by numerous safeguards we have no similar protection against the injustice or want of judgment of the average assessor. As the system is, we should say the proportion of good awards is not more than one out of three, and there are occasions when we would rely on the judgment of a lay committee rather than that of the average assessor. These facts should perhaps make us sceptical of the results to be produced by other reforms, including the panacea of Registration. The removal of the mote from our own eye may possibly take precedence of other oculists' operations.

#### Railways and Estates.

IN the current issue of "Modern Transport," Mr. Selbie, C.B.E., the general manager of the Metropolitan Railway Company, argues that railway companies should seek greater statutory powers in order that they might own and develop land lying near their lines with a view to the creation of building estates. Many of the regulations imposed on our railway companies are relics of the past belief that they were a doubtful good. The companies have been held up to ransom when they have made new lines and have been the chosen prey of rating authorities. The great lines of America on the other hand have been given broad belts of land on each side of their lines in order to induce them to lay down tracks. As Mr. Selbie argues, most, if not all, companies have the necessary machinery in the shape of architects, surveyors, and estate agents as well as ample advertising facilities; and it would be in the public interest if, like the Metropolitan Railway, they added the development of estates to their functions, while a portion of the profits made from such ventures could be used to reduce traffic rates. We hope that more will be heard of Mr. Selbie's suggestion, for there is a permanence about a Railway Company which should lead to their taking longer and bigger views of questions of land development than private speculators often do.

#### The End of the Quartier Latin.

THE creation of a "University City" is being projected in Paris. The Municipal Council has adopted the scheme and recommends that for this purpose nine hectares (22½ acres) of land, which will be set free by the demolition of fortifications near the Parc de Montsouris, be transferred to the University of Paris. The price to be paid for the land is 13,500,000 francs (£270,000). It is proposed to construct, in the centre of tree-shaded playing fields, buildings in which students of the Quartier Latin can be comfortably housed at reasonable charges. The buildings will contain a restaurant, library, and recreation room, with a garden attached. It is expected that accommodation will be provided for more than 2,000 students of both sexes. The estimated total cost is about 80,000,000 francs (£1,600,000). For the first of these buildings M. Deutsch de la Meurthe has given a donation of 10,000,000 francs (£200,000). It will form the beginning of a University City, in the realisation of which Canada, Sweden, and Argentina have expressed a desire to participate. The projected city, which will be surrounded by a park, is intended as a definite solution of the difficulties which now beset students in finding lodgings in the Quartier Latin. Paris will lose one of its most historic features if the new University City projected becomes a reality, and only the overflow remains to maintain the traditions of Murger's *Vie de Bohème*. But possibly like great improvements here the new University City will have to wait.

#### The Burlington Magazine.

No art lover should miss the May "Burlington Magazine," if only for Mr. Roger Fry's publication of the two supreme Rembrandt portraits in the collection of Prince Yussupoff, supposed to be those of his son, Titus, and his wife, which are among the greatest things in Flemish art. That these magnificent works have escaped the ravages of the Bolsheviks and are safely stored in London is a matter for sincere congratulation to the whole world. Almost equally interesting, and infinitely less familiar, are the four works of Rembrandt's

pupil, Carel Fabritius, in the same number, two of them portraits of women, one of a man, and the third an amazingly beautiful study of a goldfinch, which divides our admiration with the first portrait, one of the most direct and convincing studies of character we have ever met, as full of character as a first-rate Hals and more delicate both in conception and technique. Our congratulations to the "Burlington" on being able to reproduce in its 218th number work of such quality as to make the number a true possession.

#### Royal Institute of British Architects.

A COUNCIL meeting of the R.I.B.A. was held on June 6, and from its Minutes we give the following notes:—

*The High Cost of Building.*—The Council received and adopted a report from the Building Industries Consultative Board on the subject of the high cost of building, and ordered it to be printed in the "Journal."

*Constitutions of Allied Societies.*—The Council gave their sanction to certain amendments in the constitutions of the following Allied Societies: The New South Wales Institute of Architects, the Birmingham Architectural Association.

*Hereford War Memorial Competition.*—On the recommendation of the Competitions Committee the Council sanctioned the issue of the veto.

#### Correspondence.

##### Unification and Registration.

To the Editor of THE ARCHITECT.

SIR,—I beg to enclose for publication a copy of a letter which has been sent to the Editor of the "R.I.B.A. Journal."—Yours, &c.,

SYDNEY PERKS, F.R.I.B.A., F.S.A.

Guildhall, E.C.

June 8, 1921.

UNIFICATION AND REGISTRATION COMMITTEE.

SIR,—We view with some alarm the resolution of the above Committee that all architects should be allowed to become Members of the R.I.B.A. Up to the present the Committee make no recommendation dealing with the second subject referred to them, and if the proposal is to form part of a Registration Bill, we see no reason to object to it, for we are strong advocates for a Registration Bill that would be of real use to the profession, and we urge the R.I.B.A. to prepare a Bill of that nature forthwith. Unless this be done we suggest that Members of the R.I.B.A., and particularly our Associates, should carefully watch developments, and that they should regard with caution, if not suspicion, any argument based on the plea of first accepting the above proposal with a view to the possible framing of a Registration Bill at a later date. Until we obtain our Registration Act the basis for admittance to our ranks should be examination, and for their own sakes, as well as for the position of the R.I.B.A. as a learned Society, we ask our Members to resist any tampering with our constitution.

(Signed)

ALFRED W. S. CROSS, V.P., R.I.B.A.  
H. D. SEARLES-WOOD,  
GEORGE HUBBARD,  
SYDNEY PERKS,  
CHAS. B. FLOCKTON,  
DIGBY L. SOLOMON (Associate).

#### Forthcoming Events.

Saturday, June 18.—Architectural Association.—Summer Visit.

Monday, June 20.—Royal Institute of British Architects.—Presentation of the Royal Gold Medal to Sir Edwin L. Lutyens, R.A. 8.30 P.M.

—Royal Sanitary Institute.—Opening of Congress and Health Exhibition at Folkestone.

Thursday, June 23.—Royal Institute of British Architects.—Opening of first Annual Provincial Conference of Architects at Liverpool (two days). 10 A.M.

Tuesday, June 28.—Royal Institute of British Architects.—Afternoon Reception at the Zoological Gardens, Regent's Park, N.W. 4 P.M.

Wednesday, June 29.—Cricket match on the A.A. ground at Elstree. R.I.B.A. v. Architectural Association.



## London Art Galleries.

(All rights reserved.)

ON Wednesday, June 8, was opened at Walker's Galleries in New Bond Street an exhibition of water-colour drawings by Professor Onorato Carlandi of Rome, dealing, for the most part, with Rome herself and the Campagna, with "Tawny Tiber" or the Alban Hills, though less frequently the artist touches the beautiful shores of Lago Maggiore or Salerno. Onorato Carlandi—like Giuseppe Raggio, Henry Coleman, and in our own day Aristide Sartorio—is an enthusiastic devotee of that Campagna of Rome, which those who have once felt its fascination can never forget, which, like the sea, mirrors the clouds and gives the sense of immensity of space.

He was one of the founders of the group of the "Venticinque della Campagna Romana," to whose Sunday excursions to explore the Campagna I have had the privilege to be invited: at home in oil painting he is even more so in water-colour, of which it would be not too much to say that he is one of the greatest living exponents, and this profound grasp of his medium was based, as he himself has said, on the study of our English water-colour men of the old time, notably of that great artist, Peter de Wint. Carlandi's treatment of cloud-land is masterly; and he will love sometimes to set a cypress ("Alban lake from the Monastery Garden of Palazzolo") with its clean, strong outline, rising flame-like against the vague mystery of water or distant hills.

Among these water colours of Italy I admired especially the tempera painting of "Diana's Mirror, Lake Nemi," the water colours of "Beata Solitudo," taken from the Convent of Palazzolo, the "Villa Abandonata," "Wisteria in the Roman Forum," the cypresses in the Villa Mondragone, Frascati, and the wonderful distant view of the "Campagna, from Rocca di Papa." The opening of the exhibition was a brilliant success, and was graced by the presence of the Duchessa d'Aosta, representing Italian Royalty; the artist is known and appreciated in England, and the number of little red discs beneath many of the pictures soon showed in a practical form that appreciation.

At the Guildhall Art Gallery on Friday, June 10, was opened an "Exhibition of Works by living British painters," which might be almost described as a second Royal Academy, as it consisted of 172 pictures, many of them by well-known artists, each of which had, I believe, been submitted to and rejected by the Royal Academy. The object of the exhibition—and a very proper one—is to assist artists of reputation who have to rely on the public display of their works. There was, in fact, an almost Royal-Academy atmosphere within the walls of this famous City Gallery which the Corporation of London and their able art director, Sir Alfred Temple, have so promptly and so generously placed at the disposal of these artists. On the front wall as we enter, a magnificently decorative painting—"Romance"—by Tom Mostyn; and in the same room Bernard Gribble, Yeend King, the Hon. John Collier, Hal Hurst, Lucy Kemp Welch and others seem to welcome us like old, perhaps temporarily neglected, friends.

The landscapes are of interest, and here a Worcester-shire painter, Harry W. Adams, whose work I always look out for in the Royal Academy, but did not find this year, shows out extremely well. Mr. Adams's speciality—a predilection which I cannot myself share—is for snow scenes; and thus when he shows us in Gallery I. "The Mersey," it is to find its banks covered with snow, though even better, to my judgment, is the "Gathering Storm," hung unfortunately high, in Gallery II. In figure work "The Land of Blossoms," by Hal Hurst, R.I., shows a dainty Japanese girl smiling beneath a

shower of blossoms; and that favourite of our public, the Hon. John Collier, another exile from this year's Academy, has two paintings, "The Sleeping Beauty," in Gallery I., the reclining figures of the Princess and her sleeping maidens, well drawn and charming in type, but perhaps a little sugary, and (Gallery II.) "The Amber Necklace," a figure of a lovely blonde which, in its colour scheme, is peculiarly fortunate.

Returning to the landscapes, Yeend King's "September," "Pastorale" by Frank Spenlove-Spenlove (both Gallery I.), and "Tranquil Evening," by Evans Linton, Hodgson Liddell's "Severn," and, among the water colours, Sutton Palmer's "First Touch of Spring" all reach a good level; and one really feels inclined to wonder why work of this quality should have been left outside, when compared with some of the landscape which managed to find an entrance into this year's Academy. Among the portrait studies I noticed the "Goddess of Eden," strong and vividly painted, by Margaret Lindsay Williams, the "Right Rev. Montgomery, D.D.," by Sidney Hall, and "Morning," a woman's head and shoulders, with cool, luminous flesh tones, by Dorothea Landau de Fano. Of course, we do not quite escape the commonplace in dull portraits, or maidens with bathing costumes—or without—beside the green waves,—but it is only the usual background to merit: as a whole the exhibition justifies itself and the artists exhibiting, and makes us ask whether such an exhibition would not be a very useful annual feature.

I am leaving till next week the water colours of "Burma and the East," by Mr. Cull, on view till June 30 at the Brook Street Art Gallery; these studies present to us a country very little known from the art side, with features of exceptional interest in its buildings, which are worth a careful description.

S. B.

## Art News of To-day.

THE sale on June 8 at Messrs. Christie, Manson and Woods, of fine old English silver from the collection of Lieutenant-Colonel H. R. Compton Roberts, D.S.O., to which we have alluded, created a good deal of interest. The three Queen Anne Casters of octagonal shape, with gadrooned borders, which we illustrate on page 416, two of which were the work of "James Sympsone" of Edinburgh in 1703, brought £221 at 145s. per oz. Of the two beautiful "Tazzas" sold, the James I. Tazza, pierced and engraved with strap work, dating 1619, fell to Mr. Abbey for £201 10s. at 620s. per oz.; and the remarkable Elizabethan silver-gilt Tazza, bearing the date of 1583 and the maker's mark, a snail, was bought by Mr. Grant for £510 at no less than 800s. per oz.

The "seal-top" spoons were a feature of this collection, and brought good figures, one Charles I. silver-gilt seal-top spoon, with maker's mark, of 1627 fetching £52, and a pair of Charles I. seal-top spoons of massive proportions, with engraved stems and dated 1630, selling for £150; these went in both cases to Mr. Abbey. We understand that the old English lacquer furniture, the property of His Grace the Duke of Beaufort, to be sold on June 30 with that of the Marquis of Hertford, is almost unsurpassed of its kind.

Mr. Paul Manship, an American sculptor of repute, whose marble bust of Mr. Rockefeller has been recently exhibited in New York, is arranging a display of his work in sculpture in the Leicester Galleries this summer. We understand that a new sculpture Society is being launched in America, which may prove, to some extent, a rival to the existing "National Sculpture Society," an organisation which might be almost said to have created modern American sculpture. This new Society will be called "The Society of American Sculptors," and will, it is stated, include among its members Frederick Macmonies and Paul Bartlett, who was at one time President of the National Sculpture Society. The actual President of that Society is Robert Aitken.



# THE ARCHITECT

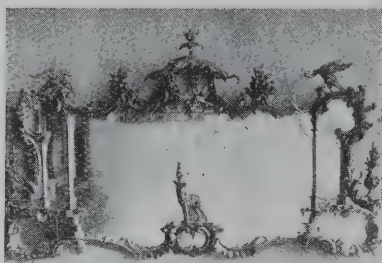
## Modern Craftsmen.—II.

### Marcel Helsen.

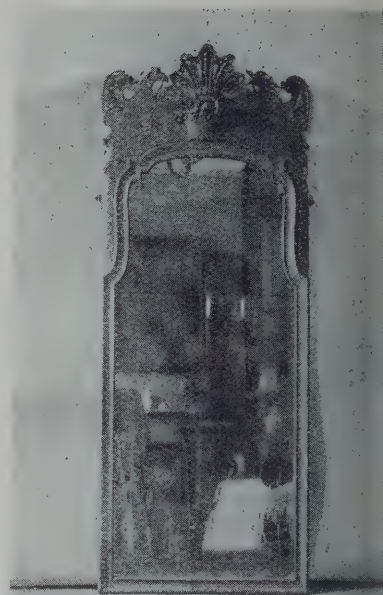
June 17, 1921



A Queen Anne Walnut Chair.



A Carved and Gilt Landscape Mirror.

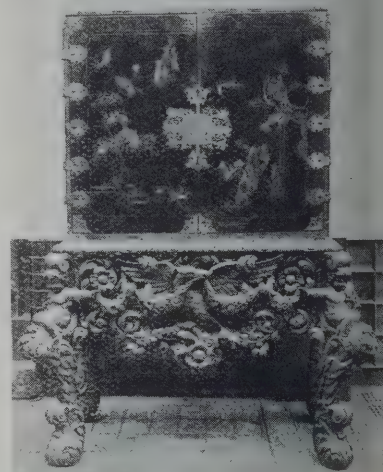


A Queen Anne Mirror.

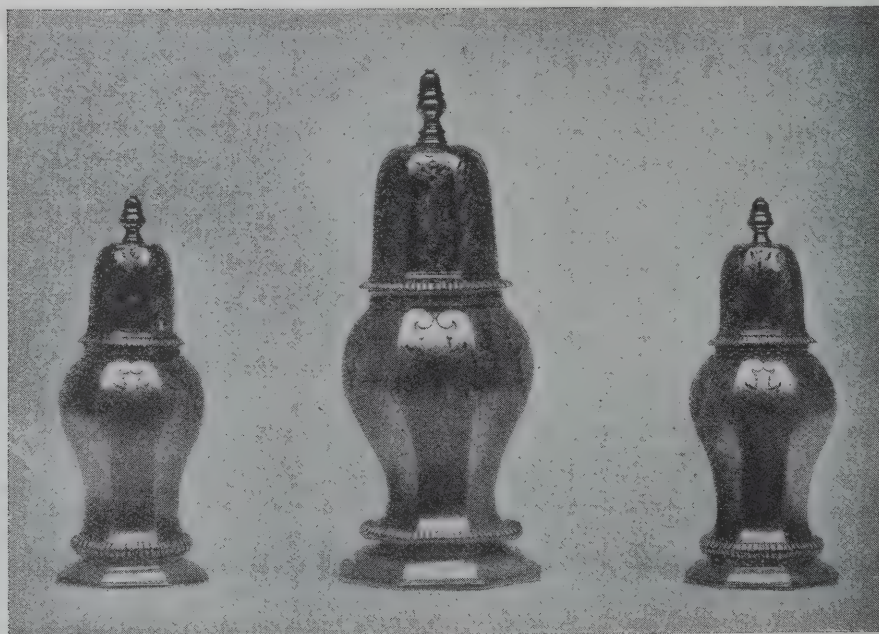


Charles II. Mirror.

We know many of the names of the master craftsmen of the Renaissance, but the system of the modern world, which has produced great decorative firms whose reputation is often built up on the work of the master craftsmen of to-day, serves to prevent those craftsmen from obtaining the credit which should be theirs and theirs alone, and often, we fear, also operates against their obtaining the financial rewards which should be theirs. We shall always be pleased, as representing the architectural profession, if we are able to dispel the obscurity which often encompasses the men who do good work. Architects would also like to be able to deal direct and not through intermediaries with the decorative artists of to-day. We give a number of small photographic reproductions of the works of Marcel Helsen, whose workshops are in Frith Street, Soho, and whose offices are at No. 58 Frith Street. Marcel Helsen is, as his name suggests, a Frenchman, who has been long domiciled in this country, and has carried out much decorative work and period furniture. A visit to his workshops proved to us that both as a designer and executant of delicate and beautiful decorative design he is probably unrivalled by anyone in this country. The great French decorators have a tradition which has been handed down from generation to generation, and in M. Helsen we have a craftsman whose fame should be European. His speciality, if one so able can be said to specialise, is gilding.



Red Lacquer Cabinet on Carved and Gilt Charles II. Stand.





## Architects' Fees on Housing Schemes.

Two Memorandums to Housing Authorities were issued by the Ministry of Health last week setting out the fees payable to architects in connection with State-aided housing schemes.

Memorandum 51/D is as follows:—

### *Abandoned Work.*

Attention is drawn to General Housing Memorandum No. 52 concerning fees payable to architects in private practice for the preparation of plans which are abandoned after approval by the Minister of Health.

The terms and conditions set out in the Memorandum have been agreed by the Royal Institute of British Architects and the Society of Architects, and will apply in every case except where an agreement providing for a specific payment for abandoned work has been made between the local authority and the architect prior to the date of the Memorandum. If the local authority have made any such agreement, the terms of the agreement should be notified to the Minister.

The modification of plans (not involving abandonment of the design) to comply with the requirements of the Minister is covered by the ordinary payment under General Housing Memoranda 4 and 31, and is not to be regarded as abandoned work for the purpose of assessing fees.

### *Definition of Scheme.*

In view of doubts expressed as to the method of calculating the fees payable under General Housing Memoranda Nos. 4 and 31, it has been thought desirable to include in the present General Housing Memorandum, a definition of the term "scheme" as used in the Memoranda.

### *Travelling Expenses.*

Questions have been raised as to the payment of architects' travelling expenses. The scales of fees in General Housing Memoranda Nos. 4, 31 and 52 are inclusive scales covering all out-of-pocket expenses. It is recognised, however, that special provision should be made for cases in which the architect's duties involve a considerable amount of travelling. The Minister will be prepared to allow as a charge to the Housing (Assisted Scheme) Account reasonable travelling expenses in respect of journeys over twenty-five miles from the architect's office which are necessitated by the architect's duties in connection with the housing scheme.

Memorandum No. 52 is as follows:—

The Minister of Health has had under consideration the question of the payment to be made to architects in private practice for the preparation in connection with State-aided housing schemes of plans which are abandoned after approval by the Minister, and has decided that in such cases, except as provided in the last paragraph but one of this Memorandum, the following terms and conditions shall apply:—

### *I.—LAY-OUT PLANS.*

For preparation of lay-out plans the full fees according to the scale under the heading "A:—Preparation of Lay-out Plans" laid down in General Housing Memorandum No. 31 shall be payable.

### *II.—ROADS AND SEWERS.*

1. In cases where the employment of the architect is discontinued on the abandonment of the lay-out plans, the fees payable for the abandoned work shall be as follows:—

(i) If only drawings and specifications have been prepared, one-third of the scale fees set out under the heading "B.—Roads and Sewers" in General Housing Memorandum No. 31.

(ii) If all the work necessary for the purpose of obtaining tenders, including the preparation of quantities, has been done, two-thirds of the scale fees set out under the heading "B.—Roads and Sewers" in General Housing Memorandum No. 31.

2. In all cases of partially abandoned schemes the fees payable for the abandoned work shall be three-quarters of the fees indicated in (i) and (ii) of the preceding paragraph respectively, according to the circumstances of the particular case.

### *III.—HOUSE PLANS.*

(a) The references to "scale fees" in the paragraphs which follow mean the scale under the heading "C.—Cottages and Flats" in General Housing Memorandum No. 31, namely:—

5 per cent. upon 12 cottages or flats.

2½ per cent. upon a further 60 cottages or flats.

1½ per cent. upon a further 178 cottages or flats.

(b) For the purpose of calculating the fees hereinafter set forth, the abandoned work shall be deemed to comprise a number of houses equivalent to the number of separate designs which have been prepared. Such ordinary variations as are necessary to avoid monotony in appearance or mere change of aspect of larders or the like shall not be regarded as constituting separate designs.

(c) The fees shall be calculated on the amount of the lowest tender received, or on the estimated cost, or on the maximum amounts specified in page 3 of General Housing Memorandum No. 31, whichever may be the least.

1. In cases where the employment of the architect is discontinued on the abandonment of the plans, the fees payable for the abandoned work shall be as follows:—

(i) If only sketch plans have been prepared, one-half the scale fees, under heading C. in Memorandum No. 31, calculated in accordance with paragraphs (b) and (c) above.

(ii) If all the work necessary for the purpose of obtaining tenders, including the preparation of detail drawings, has been done, the full scale fees, under heading C. in Memorandum No. 31, calculated in accordance with paragraphs (b) and (c) above.

2. In cases where the architect is retained to prepare fresh plans, the fees payable for the abandoned plans shall be one-half of the fees indicated in (i) and (ii) of the preceding paragraph respectively, according to the circumstances of the particular case.

3. In all cases of partially abandoned schemes, fees in accordance with the preceding paragraph 2 will be payable for the abandoned work. For the purpose of calculating such fees the abandoned work shall be deemed to comprise a number of houses equivalent to the number of separate designs approved for inclusion in the lay-outs of the portions of the scheme which are abandoned, although some or all of such designs may have been utilised for the houses erected.

The foregoing terms and conditions will not apply in any case where an agreement providing specifically for payment for abandoned work has been made between the local authority and the architect prior to the date of this memorandum.

### *GENERAL.*

The term "scheme" as used in this Memorandum and in General Housing Memorandum No. 4 and General Housing Memorandum No. 31 means the whole of the assisted scheme of the local authority, and includes the whole of the houses provided by the local authority, whether on one or more sites.

## Competition News.

MEMBERS of the Society of Architects are requested not to take part in the Hereford War Memorial competition without first ascertaining from the Society that the conditions have been approved by the Council.

MEMBERS and Licentiates of the Royal Institute of British Architects must not take part in the Sutton Coldfield War Memorial competition, because the conditions are not in accordance with the published regulations of the Royal Institute for architectural competitions.

THE Burgh Hall, Dumbarton, is to be enlarged at a cost of £10,000. The plans have been passed by the local Dean of Guild Court.



## Some Fashions in Architecture.

THE concluding lecture of the series given on Thursday afternoons at 9 Conduit Street, W., under the auspices of the R.I.B.A. Literature Committee, was delivered on Thursday, the 9th inst., when Mr. Goodhart-Rendel spoke on the above subject, his remarks being illustrated with a large number of interesting slides.

In his opening remarks Mr. Goodhart-Rendel said he would not attempt an exact definition between that which is fashion and that which is style, beyond the assumption that fashions in art must be imposed from without, whereas styles are developed from within. Fashions not infrequently develop into styles—styles may prove so ephemeral that they may almost be dismissed as fashions. So he would in the main follow the usual practice of critics and call those developments of architecture which he happened to like “styles,” and those he happened to dislike “fashions.”

The architectural manner of the Renaissance was a style, a style beginning in a fashion. In Italy Renaissance Classicism was never a mere fashion even at its inception; it was indigenous. But the history of Renaissance architecture in England is a sad one. It is a terrible story of evil communications, fortunately with a happy ending. The gracious building tradition of the Tudors became in the next hundred years utterly debauched by a detestable fashion for Low German ornament, and this ornament was executed with a vulgarity which even the kindly fretting of Time can scarcely make tolerable to the eye. The Elizabethan age was a great time for the *nouveaux riches*. Everybody desired showy ornament, and lots of it. England was not the only innocent country to suffer from this savagery of decoration, since France also was affected, although not so considerably. In England it was soon exterminated by the disinfectant labours of Inigo Jones. The seed which Inigo Jones himself brought from Italy sprang up quickly and blossomed as a distinct and a national style. Wren developed this style and cultivated it wisely; but unhappily some of the contemporaries of his later life fell from grace into eccentricity. The result was a reaction, not in the direction of the Greenwich and the Wilton of Jones, but towards the Vicenza of Palladio. Palladianism became the rage. In this fashion, we meet first in England with the fatal practice of copyism. The reactionaries built specimens of Italian architecture first, and contrived afterwards that they should be habitable houses, more or less. There is nothing more surprising in our architectural history than the docility with which, during a period of about eighty years, men consented to build for their own habitation whatever strange things their architects might propose. The Grecian fashion of the early nineteenth century changed the model from that of the Palladian villa to that of the temple.

The common alternative to Grecian was the Gothick. Gothic architecture throughout the seventeenth and eighteenth centuries had never disappeared altogether from the land, but it had only been practised on exceptional occasions, and then for the most part by hands unskilled in its mysteries. The time had not yet arrived for lengthy and scholarly discriminations between the Gothick styles of Wren and of Hawksmore, of Batty Langley and of Horace Walpole. The antiquary of the eighteenth century regarded vestiges of monkish times with an amused indulgence: he might perhaps speculate upon the vault of a cathedral or the convolutions of a traceried window if there were no heraldry, epitaphs, or ancient deeds to detain him. A hundred years later the antiquary became the archæologist, worked as the servant of the revivalist, to whom every stone held teaching for the workmen of his own time. Horace Walpole, for all his pokings and prying into the cathedrals, was a true son of his century in that his mediævalism was never more than a game. Nobody for a moment suspected that mediæval architecture was worthy of serious study, still less of exact reproduction. Rather was it desirable to correct the grosser irregularities of a barbarous style and to suggest that style by allusion, while conforming in

the main to the procedure of polite architecture. Batty Langley when he reduced Gothic forms to a system of regular orders was consciously engaged in original design, and in that respect was perhaps superior to the copyists of a century later.

In the year 1827 Crockford's Club House was built by Benjamin and Philip Wyatt, and the internal decoration of this building marked the beginning of a new epoch. The Wyatts said, and no doubt believed, that it was in the style of Louis XIV.; and as such it was accepted and admired by polite London. Whatever the style may really have been it was certainly in violent reaction from the straight lines and antique ornament of the current Greek fashion. To the example of this building was due the curious change in taste which appears to have taken place almost universally in this country between the years 1820 and 1830. One of its practitioners described the new elements as being in the “Fancy Style.” It was this Fancy Style which blossomed more profusely than any other at the Great Exhibition of 1851. Although it did not influence such stalwarts as Cockerell and Penne-  
thorne, it is present nearly always in the works of Sir Charles Barry and his school. Characteristic features of it are the use of large naturalistic ferns and leaves in ornament, a fondness for coarse mouldings, a habit of rounding off angles wherever possible, a desire amounting almost to a passion for universal enrichment, and an elimination of all those kinds of enrichment which could not be mechanically produced.

This preference for the product of the machine, said Mr. Goodhart-Rendel, was part of that belief in art for the masses, or rather of ornament for the masses, which was an article of the social creed of that day. The revival of Grecian elegance and simplicity had been all very well for the aristocracy, but the middle and lower classes had felt rather badly out of it; now it was their turn. The age of Landseer, of Mendelssohn, of Letitia Landor was not one in which art was allowed to give herself airs; her business was to please the people, and the people took good care that she knew it. The Fancy Style was the gift which architecture brought to her new masters, and it was received with great favour. If British manufacturers continued to progress as they were doing, said its adherents, there would soon be no need to have in the house any undecorated object whatever. According to the lecturer the Fancy Style remains still in spirit with us in hotels, in cinema theatres, in music-halls. The letter of it has changed however, and it is only in such things as the merry-go-rounds at a fair that we still find the authentic details in current use. But an architectural Old Moore might do well to predict its general revival in a few years time from now.

Though Sir Charles Barry was one of the many lovers to whom the Fancy Style was kind, Mr. Goodhart-Rendel pointed out that there was another Fashion of great importance in which for a time he had exclusive rights. This Fashion was the Victorian Italian. It began in 1827 when he designed St. Andrew's, Brighton. He established the fashion in London at the Travellers' Club in Mall Mall, and London was instantly conquered. Venetian and Florentine palaces became the rage, and were made to serve indifferently as club-houses, as institutions, as suburban residences, and as warehouses. As a general rule Barry's lead was not followed in ecclesiastical buildings. So far as any fashion contended seriously with the growing popularity of imitative Gothic at this time for churches, it was not Italian but a form of German Romanesque. The pioneer of this latter was Edward Blore, who set the ball rolling with the Church of Holy Trinity, Lambeth, in 1839. Hakewill killed it in 1846 with his astonishing remodelling of the poor old parish church at Kentish Town.

To the men of the Romantic movement, Gothic architecture was not a fantasy but deadly earnest; its principles were not merely curious, but absolutely just; the practice of it was not to be a pastime but the employment of a dedicated life. The question which concerned Pugin and Carpenter was not whether to copy or not—but what to copy. By about 1850, it had become a dogma with the



Tractarians that Decorated, or as they called it "Middle Pointed," was the only allowable style for a new church. After ten years of copyism both the Tractarian architects and their patrons felt that they had had enough, and that the time had come to practise the art so arduously acquired. Directly the restraint was removed, said the lecturer, everything happened all at once. Butterfield went off in one way, Teulon in another, Pugin and Carpenter died, and Sir Gilbert Scott was thoroughly shocked. On the top of all this came the international competition for the Lille Cathedral in 1855 with its enforced use of primitive French Gothic. A battle soon arose between architectural nationalists and internationalists. Ruskin introduced another element into the struggle by his advocacy of Lombardic forms. The internationalists won, and Parker's "Glossary" and Brandon's "Analysis" were finally dethroned. Butterfield was chief among the few who scorned foreign ways, perhaps because he was too busy experimenting in constructional polychromy to welcome any distractions. After a little while the ferment of this cosmopolitan fashion subsided, and Victorian Gothic settled down.

After dealing with the somewhat nondescript type of hotel building which broke out between 1860 and 1870, as exemplified by the Grosvenor, Langham, and Inns of Court hotels, Mr. Goodhart-Rendel came to the more immediate past. It was, he said, rare for an architect to lead two architectural revolutions in his lifetime—yet such was the achievement of Richard Norman Shaw. As a student this great man, like all the younger men of the 'sixties, followed almost slavishly the style of Street. Traces of that influence are to be found in this Gothic work throughout his whole career. Although Norman Shaw stands in history for the "Queen Anne" movement, the first Queen Anne building of the nineteenth century was the Royal Naval College at New Cross—designed in 1843 by a Shaw whose Christian name was John. It was not until 1872 that Norman Shaw exploded his Queen Anne bomb in Leadenhall Street with the famous New Zealand Chambers. This variation was unlike anything else in history, produced as it is by the reaction of Low Classic detail to the picturesque formulæ of the Gothic Revival. It was in the end to die by his own hand. As he grew older Norman Shaw appears to have changed his way of thinking, and after having tempered the picturesque with the grand manner, he turned his back upon his past and astonished the architectural world with the design of "Chesters" in Northumberland. In appraising the later work of Norman Shaw, the lecturer said he never seems to have aimed at the classic ideal of repose,—he was always putting five windows over three arches as in the St. James's Street Post Office, or setting up theatrical screens of columns as in the Piccadilly Hotel, or trying to suppress the principal doorway of a building as at the Gaiety Theatre, or indulging in some other trickery. In his last days he was a great romantic playing with a classical box of bricks, and although he piled the bricks up most picturesquely, he apparently knew what they were meant for.

Where Norman Shaw failed, it was not very likely that anyone else would succeed; but whatever Norman Shaw did everybody else would try to do too.

After discussing and illustrating particular instances of Fashions the lecturer said nobody could hope to be entirely uninfluenced by fashion, in art as in anything else, and excellent work has been done within those limits. Constant change of fashion, however, does weary and distract the artist who tries to conform to it, without losing those ideals of beauty which fashion cannot touch. There is one kind of fashion which is in its very nature bad, and that is that which imposes upon the artist not the manner only but the actual matter of his design. Another fashion of which it behoves us to beware is that which transfers attention from the beauties of design to the beauties of material. We are suffering under it at the present moment. Are we, asked Mr. Goodhart-Rendel in conclusion, bold enough to anticipate a favour-

able verdict from the future upon our Dutch bricks, our artificially rough tiles, our clouded and stippled paintwork, our woodwork of oak or of pine excoriated and blotched with wire-brushes and lime-wash? If we are not, we must see to it that, when all these charms have become nauseating, there is something else in our buildings to justify us in the eyes of our sons. And that something will certainly not consist in fidelity to any contemporary fashion in architecture.

## New Books.

"Modern Painting. III.—The Work of Arnesby Brown, R.A." With a foreword by A. L. Baldry. 1921. 7s. 6d. (The "Studio.")

THIS volume, the third of the series, is one of the most attractive both in subject-matter and illustration. Mr. Arnesby Brown, who, we are reminded by Mr. Lys Baldry, made his first appearance in the Royal Academy in 1890 while still a student in the Herkomer School at Bushey, was even then an artist of more than ordinary promise and conviction. That promise he more than fulfilled during the years which followed; and he now claims a place of his own in modern British art. As such, as a leading and sincere exponent of modern landscape, we welcome his presence in this series. He has followed, as Mr. Baldry points out in his foreword, "the tradition laid down by such masters as Gainsborough and Richard Wilson, who were essentially decorators in spirit and intention; but to his reading of their principles he brings a thoroughly modern attitude of mind. They could not help reflecting some of the artificialities of their period, some of its self-conscious elegance; he is under the influence of that affected simplicity which is the fashion of to-day." But this writer goes on, very properly, to point out that in this simplification there is no affectation in the artist, no pose: that it is rather the expression of a man who believes simplicity and directness in art to be right, and that by these qualities the most significant pictorial results can be attained.

We can trace out these qualities in Arnesby Brown's work in the admirable selection of illustrations given here—notably in such plates as "The Church on the Hill" and the brilliant "September Morning"; and we may compare this last with the luminous beauty of "June," with its wonderful handling of the cloud forms. It is, in fact, impossible to pass by these fine plates without a word of praise for their execution. "The Studio" has a high record in colour reproduction; and here, in work worthy of the finest treatment, in painting which is as strong as it is subtle, a result of the first quality has been obtained. Two other plates, which are no less successful, treat "The Estuary" and "May in the Marshes," both typical of Arnesby Brown's landscape art.

S. B.

THE Scottish Board of Health has been authorised by the Treasury to approve the plans for the erection of a sanatorium at Southfield, Mearns, for the Glasgow Corporation. The institution will accommodate 300 patients suffering from tuberculosis. It is expected that the work will be proceeded with as early as possible.

ARCHITECTS' fees for 682 houses in Dundee under the housing schemes are likely to cost £8,000, and the Housing Committee is to ask the Board of Health for Scotland to reduce them. It is calculated that £6,000 would be saved if the work were done by the city architect's staff. The city architect (Mr. James Thomson) is to report as to the advisability of establishing a Corporation housing department.

THE Leeds City Council has ratified an arrangement with the Leeds Philosophical and Literary Society, under which the Corporation will acquire the society's hall and museum in Park Row, containing a valuable collection of antiquities and war and other relics. The scheme assumed that the society's building was worth £50,000, and that the value of the collection in the museum was £100,000. Under the transfer arrangements the Corporation will, among other things, set aside £1,000 a year for twenty-five years to be dealt with by the Philosophical Society, and a sum of £500 a year for twenty-five years to be set aside to be administered by a Special Joint Committee.



## The Economic Unit Principle Applied to Large Cities.

By JOHN LATHROP.

### LONDON'S OPPORTUNITY BY DIFFUSION OF ACTIVITIES AND CREATION OF SUB-CENTRES.

BEFORE making application to London, consider again briefly New York City. During the past twenty years, while Greater New York increased heavily in population, Manhattan (the lower end and chief borough in Greater New York) actually decreased in residential population. It was the result of the people moving farther out, to other and more essentially residential districts. Corresponding residential decreases have been noted in "The City" here.

Congestion has not been relieved, but is worse than ever, because there was not a coincidental decrease of activities in that region. The worse-than-ever congestion is caused by the new businesses which move into the space vacated by residents, and by employees who must return each day to perform their functions. This involves immensely greater transit facilities, especially at the "peak load" hours, when underground, tram, and elevated vehicles are packed with humanity. Every resident who moved out has to return in the morning and go back to his new home in the evening, and becomes an added burden on the transportation agencies.

Transit previously had been developed beyond the point of economic density; every passenger thus added came under the law of the economic unit; and congestion increased geometrically, which caused also geometric increase in the cost of transporting each unit.

The conclusion must be that relief may be had only by diffusing activities, as well as residential population. Thousands of businesses could better be carried on in other localities. For instance, almost any general manufacturing industry would operate under more ideal and economic conditions were it to leave the crowded Manhattan Borough. Yet these thousands remain, for a variety of causes, which will later be discussed in this series.

What about Greater London? Here are seven millions of persons. Congestion is serious. But relief is possible; more easily achieved than in Greater New York. Indeed, a close study of London and many other world capitals, forces one to the conclusion that London possesses structural advantages which make possible the development of a large community with economic efficiency within the reach of none other. This is because (in part) of the admirable law limiting heights of buildings, and strictly proportioning them to street widths; which is only another way of saying that traffic into and out from buildings is scientifically adjusted to the traffic capacity of the adjacent streets.

But another important element is the beginning already made in the development of sub-centres, such as Knightsbridge and Kensington, which, carried to the proper degree, would keep excess traffic away from the great common centre in and near "The City."

Few students of municipal science will deny that the common centre in a large city creates congestion. It is an automatic device to involve over-crowding. All transportation lines must run to that common centre. So that the better the transit facilities, the greater the congestion, the greater the pressure of activities to squeeze estate values into the air, the more impossible become the jams in the streets.

The development of such sub-centres as Kensington was incidental, not from careful planning. Aristocratic families sought proximity to the royal palace in the Gardens, and a sub-centre grew as "Topsy" grew—who said she had "jest growed." But the social and economic value of these and other sub-centres should be recognised; their development induced to approximately complete communities, with shops, banks, theatres, and everything adequate to all but exceptional needs of the contiguous population. There would, of course, be certain institutions, such as the great art galleries and the

opera, general offices and banking headquarters, and perhaps certain shops of especial character, which could not be maintained in these sub-centres. But for the vast majority of social needs the sub-centre would suffice.

Every facility thus provided would tend to decrease the habit of going to the common centre; transportation flow would correspondingly be reduced to an approximation of economic density. For be it remembered—so long as an uneconomic traffic situation exists, so long will transit companies be unable to remain on a solvent basis unless they increase fares constantly. Increased fares on underground, tram and 'bus lines are the result only in part of post-war troubles. Increase would have come had there been no war. Perhaps they would have come sooner in some countries. For in several instances Government in the war had to intervene and assist the companies in meeting their fixed charges and operation costs, and many transit companies obtained no dividend margin, or at best an exceedingly small margin.

The increases in fares were due anyway; were inescapably decreed by the law of the economic unit; sometimes stated in another form as the law of density of traffic.

Only when Government and the great leaders of industry, transportation, and business realise these laws as inexorable will relief be possible. But when they do there will begin, first, systematic education of the people in these truths, and second, readjustment of existing social agencies to cause evolution of the desired changes. By a process, not casual and sporadic, but intense and prolonged, the people will have to be shown that it is in the interest of all classes that these changes be effected.

No Utopian scheme of radical upstirring or tearing down is suggested: It must come, not by revolution, but by social and economic evolution; the process of evolution advanced by patient and intensive education of the people in the desirability of the changes here outlined. It would make of London, or of any other large city similarly treated, a collection of small cities, each one in large measure sufficient unto itself, each one approximating the economic unit in size and magnitude of activities. The contiguity of one unit to another would not in too great degree militate against realising in each reasonably economic conditions.

What would be the dividends?

1. A more neighbourly relationship between the people; a more definite knowledge of and interest in local institutions; a personal pride therein not now existent or possible; therefore, a closer approximation to democracy.

2. Decrease of transit necessities, enabling the bringing of plants and operation to a economic basis.

3. Lessening of delivery costs, by retail shops.

4. Saving time for each family in doing their shopping.

5. Spread of estate values over larger areas; decrease of too high value in the common centre; lessening of overhead in the common centre; increase of rateable values in the whole larger area.

6. Opening larger opportunity for comparatively smaller dealers, amusement concerns, &c.

7. Less congestion in the common centre, with vast salvage of time for those who must go there.

8. Less cost of repairs to streets.

9. Lowering living costs.

10. Making of London a better place in which to live, do business, and rear children; the ending of the vain attempt to ignore economic laws; and this line of argumentation applies to large cities in every country under the sun.

THE Mid and West Cornwall Employment Committee have prepared a scheme by which it is hoped that employment will be found for 100 men by utilising the waste material of mine dumps in the manufacture of concrete blocks, posts, and bricks. The directors of South Crofty are prepared to place the dumps on their property at the disposal of the committee. It is also hoped that assistance will be obtained from the Unemployment Grants Committee.



# CONCRETE BLOCKS "KING" PLASTER SLABS

## WALLS PARTITIONS ROOFS

### FIBROUS PLASTER CEILING SLABS

*Ferro-Concrete and Glass Constructions*

## "FERRO GLASS" PAVEMENT LIGHTS

## "KING" CONCRETE GLAZING BARS

### J. A. KING & Co.

181, QUEEN VICTORIA ST., LONDON, E.C., and  
BRITANNIA BUILDINGS, LEEDS.  
Tel: City 2213 and Cent. 773, and Leeds 22712.

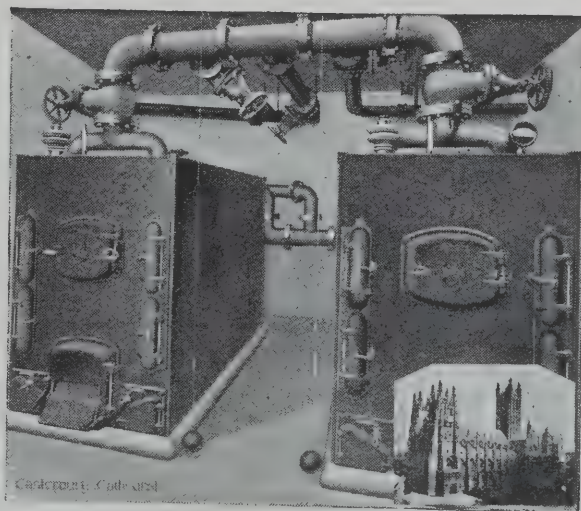
## Ideals at Canterbury

The accompanying illustration shows the two No. 3-F-120 Ideal Sectional Water Boilers recently installed at Canterbury Cathedral for heating the  $4\frac{1}{2}$  miles of piping and coils which distribute warmth in this historic building.

**IDEAL & IDEAL**  
RADIATORS & BOILERS

Canterbury Cathedral was erected in the 11th century, is 514 feet long while the central tower is 235 feet high; the choir is the longest in the country (180 feet).

Ideal Radiators and Ideal Boilers are constantly installed in old and new buildings of all kinds and are made in sizes and patterns to suit nearly all heating requirements.



*Further particulars on request. Inspection of our Showrooms invited.*

### NATIONAL RADIATOR COMPANY

LIMITED.

Offices, Showrooms & Works : HULL, Yorks.

Telephone: Central 4220. Telegrams: "Radiators, Hull."

London Showrooms : 439 & 441 Oxford Street, W.1.

Telephone: Mayfair 2153. Telegrams: "Liableness, London."

*Agents in Great Britain carrying stocks of "Ideal" Radiators and "Ideal" Boilers:*

Baxendale & Co. Ltd., Miller Street Works, Manchester.

William Macleod & Co., 60-64 Robertson Street, Glasgow.



## Presentation to the President of the Royal Institute of British Architects.

THOSE who have been associated with Mr. John W. Simpson on the Council of the Institute during the past two years, to the number of about fifty, gave expression to their appreciation of his services to the Institute and to the profession generally by presenting him, on June 6, with a signed address, beautifully written on vellum by Mr. Graily Hewitt, together with an antique bracket clock decorated in lacquer.

Mr. Waterhouse, who had been asked to represent the signatories said, addressing the President, that he thought the occasion might be compared to a bankrupt's meeting with his creditors, but with the parts reversed. There was in this case but one creditor and a room-full of debtors, who found no way out of their embarrassment but the presentation of a framed and illuminated I.O.U. Mr. Simpson's colleagues during his two years of office were all in debt to him, and they had tried to express not their whole debt indeed, but their inability to repay by the parchment now presented and by the gift which accompanied it.

He might, said Mr. Waterhouse, enlarge at length on the natural and acquired abilities which Mr. Simpson had so successfully exercised in his position as President, but he was concerned now, not with the public and more conspicuous aspects of Mr. Simpson's success, but rather with those that had made so pleasant the intimate relationship of his colleagues with himself. Among them he might at least recall his fidelity to the cause of architecture and architects, his genial power as ruler of the Council, his innate tact in varied directions, and finally a quality of friendship which could only be acknowledged—as he then did most heartily acknowledge it—by a handshake.

Mr. Simpson spoke with a great deal of feeling in reply, but said that at the moment it was quite beyond him to express adequately either his appreciation of the gift or the value that he placed on the friendship and goodwill of those who had given it. Nothing that had happened during his term of office had given him so much pleasure or had enabled him to realise as this had done the strength of the good feeling that he had always been conscious of.

## Berks, Bucks and Oxon Architectural Association.

A SPECIAL meeting of the above newly-formed association was held in the Committee Room, Town Hall, Reading, on Thursday, June 2.

The chair was taken by Mr. C. S. Smith, J.P., F.R.I.B.A., Chairman of the Reading Society of Architects, and twenty-seven architects from Berks, Bucks and Oxon were present, including Messrs. W. R. Howell (F.), T. T. Cumming (A.), H. W. Rising (F.), C. B. Willcocks (F.), H. Hutt (A.), W. J. Freeman (A.), C. S. Kimpton (A.), Berks; T. Rayson (A.), Oxon; R. A. Rix (A.) and A. Cooper (Bucks).

The by-laws of the association were received and confirmed, and the following officers elected:—

*President.*—Mr. E. P. Warren, F.S.A., F.R.I.B.A. (Berks).

*Vice-Presidents.*—Mr. C. S. Smith, J.P., F.R.I.B.A. (Berks), Mr. H. Rogers, M.A. (Oxon).

*Hon. Treasurer.*—Mr. T. T. Cumming, A.R.I.B.A. (Berks).

*Hon. Auditor.*—Mr. R. A. Rix, A.R.I.B.A. (Bucks), with Mr. H. Hutt, A.R.I.B.A., as Honorary Secretary (Berks).

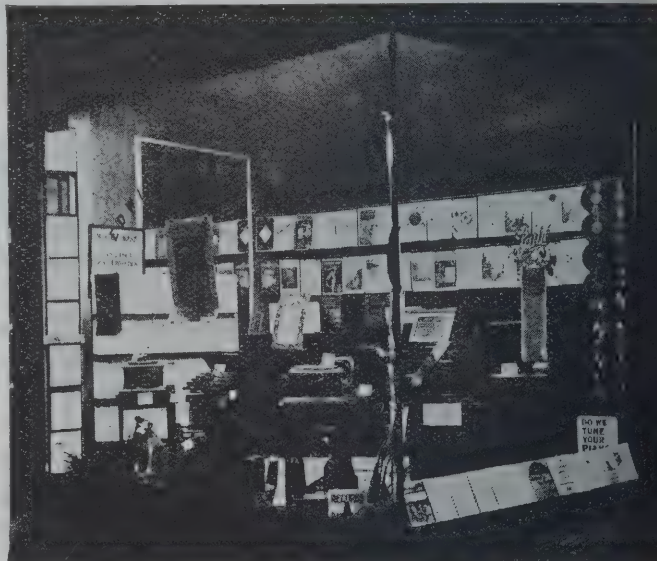
The various branches of the association nominated their representatives for the Council. The Association resolved that formal application should be made for affiliation with the R.I.B.A. Competitions were arranged open to members and students of the Association for an Association Badge and measured drawings.

## A Brilliant Group of Shops.

To convert the wealthy corporation to a new principle or method of business, or, at any rate, to bring it to the stage of interest and experiment, is a relatively simple matter. In connection, for example, with the lighting of shop windows, little difficulty has been experienced in persuading the big department stores to instal up-to-date systems. Small traders, however, have not been so easily convinced of the advantages of scientific design, and the majority of suburban shops pathetically exemplify the futility of pouring the new wine of gas-filled lamps into the old bottles of obsolete equipment.

Here and there one may see windows lighted adequately and artistically; and yet more rarely a small community of well-illuminated shops may be discovered. Such an aggregation is to be seen at Palmer's Green. Messrs. J. Prosper and Sons, the local electrical contractors, are lighting enthusiasts. By equipping their own shop window with concealed X-ray reflectors and Mazda gas-filled lamps, and thus distinguishing it from the windows on either side, Messrs. J. Prosper and Sons created a feeling of discontent amongst their neighbours, to such excellent effect that within a few weeks, twelve shops in the same block had installed X-ray equipment. The shopkeepers followed one another's example. As each installation was completed, its contrasting brilliance forced neighbouring shops to imitative action.

One of the shops of this scintillating group is here illustrated. Four X-ray reflectors of the "Hood" type



are used, each reflector being fitted with a 100-watt Mazda gas-filled lamp. The lighting units are concealed by a narrow curtain at the top. It affords an excellent example of the advantage of the X-ray method of lighting in highly trimmed windows containing tickets and other printed matter. The music titles are clearly visible. Had the window been lighted in the ordinary way by means of lamps hanging in the line of sight, the reflected light from the white surfaces of the music would have produced halation on the photograph, and the printed matter would have been quite illegible; which phenomena are simply a photographic exaggeration of the actual effects on the human eye.

The photograph was taken at night, solely by the light of the X-ray units, and has not been retouched in any way.

The materials for all twelve installations were supplied to the contractors by The British Thomson-Houston Company's Illuminating Engineering Department (77 Upper Thames Street, E.C.4), to which requests for further information should be addressed.

THE Institution of Electrical Engineers, at a special general meeting, decided to apply to the Privy Council for a Royal Charter of Incorporation. One of the clauses of the proposed Charter confers on corporate members the right to use the designation Chartered Electrical Engineers.



# REDPATH BROWN & CO., LTD. CONSTRUCTIONAL ENGINEERS

## WORKS AND STOCKYARDS

LONDON.  
Riverside Works.  
East Greenwich, S.E.

MANCHESTER.  
Trafford Park.

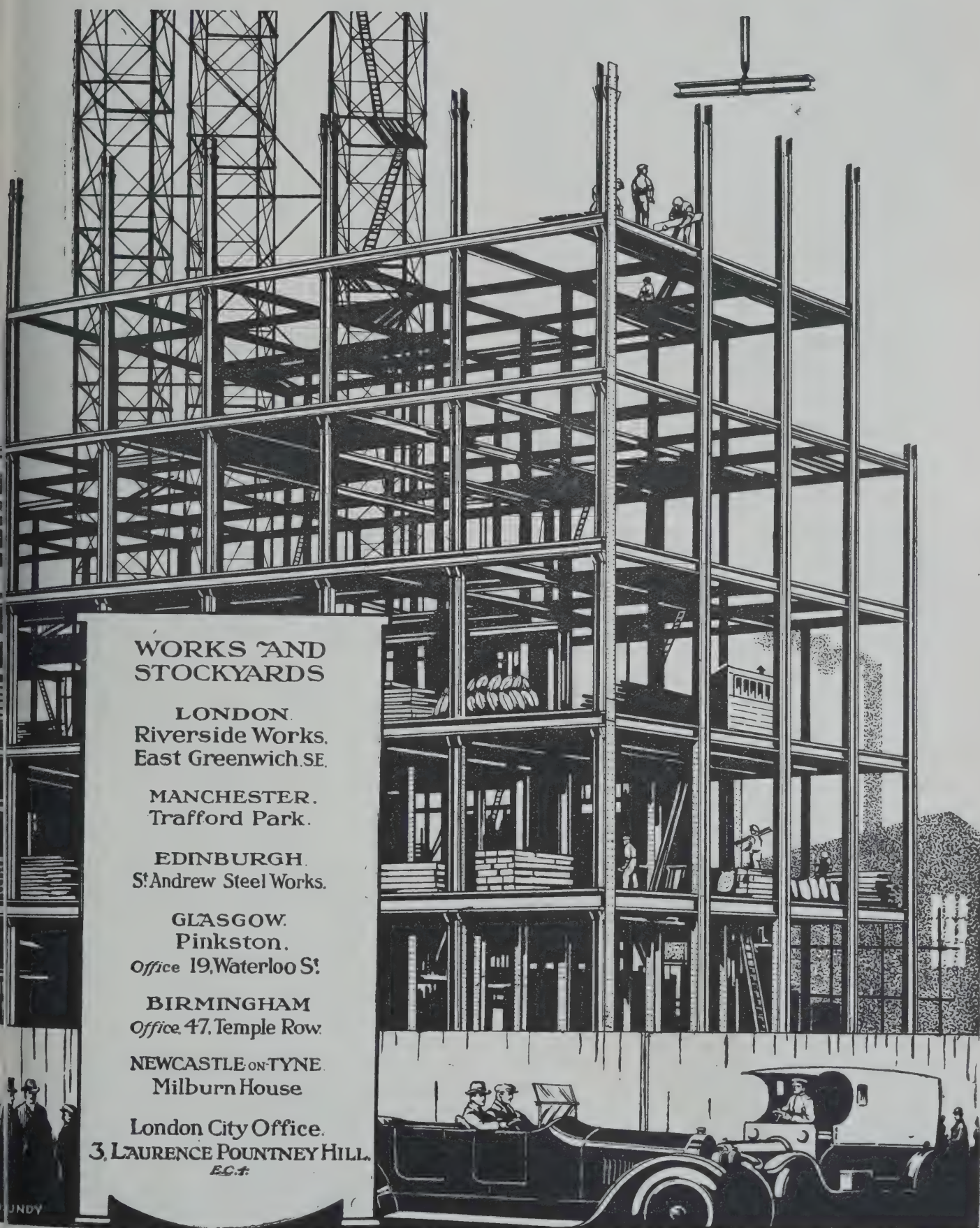
EDINBURGH.  
St. Andrew Steel Works.

GLASGOW.  
Pinkston.  
Office 19, Waterloo St.

BIRMINGHAM  
Office 47, Temple Row.

NEWCASTLE-ON-TYNE.  
Milburn House

London City Office.  
3, LAURENCE POUNTNEY HILL.  
E.C.4.





## "The Architect" Fifty Years Ago.

JUNE 17, 1871.

THE "CRITERION."

WE give this week an illustration of the first premiated design for this building, which is now being erected in Piccadilly for Messrs. Spiers & Pond, the well-known restaurateurs, from the designs and under the superintendence of T. Verity, Esq., of 23 Northumberland Street, Strand, who was the successful architect in the competition for this building.

In our number for March 25 we reviewed the whole of the fifteen sets of drawings submitted, and at that time expressed our opinion that this design fully deserved the position which had been awarded to it.

This undertaking, combines first- and second-class public dining-rooms, a grand buffet, smoking and reading rooms, shampooing, bath and dressing rooms, private dining, supper, and billiard rooms, a fine art gallery and photographic studio, a concert hall similar to the *Athénée* in Paris, and a great hall for balls, dinners, and public meetings; suites of rooms will also be available for literary, artistic, and scientific clubs. The kitchens and other rooms connected with the service will be fitted up with all the most modern improvements, so as to render this branch of the undertaking perfect and without rival. Dormitories for forty-eight servants are also provided in the upper part of the building.

The engraving shows the front towards Piccadilly. The central archway leads into a large vestibule, from which access is obtained to all parts of the house. The entrance on the right is the approach to the minor hall and principal dining saloon, that on the left leads to the buffet, cigar divan, and telegraph room. The large windows on the first floor show the position of the grand hall, which is 76 feet by 50 feet, and capable of accommodating 1,300 persons.

We may also remark that the entrances are so arranged that should either of the halls be engaged for a private party, they may be entirely cut off from the public without interfering with the regular business of the establishment.

The main portion of this front it is intended to execute in Portland stone, and all the ornament will be modelled in buff terra-cotta.

### General.

A HIGHER-GRADE school for girls is to be erected at Netherhill, Paisley, at the instance of the Roman Catholic authorities. The plans have just been passed by Paisley Dean of Guild Court.

THE Abbot's Kitchen and a portion of the Almary at Glastonbury, part of the remains of the Abbey, are to be sold locally on June 30, by Messrs. Hampton & Sons (St. James' Square) and Messrs. W. H. Palmer & Sons (Glastonbury).

THE Metropolitan-Vickers Co. have secured a contract amounting to £300,000 for supplying five turbo-alternators required in a proposed electrical power scheme for Melbourne and district. This order was won in competition open to the world.

THE Moray County Council have decided to erect a reinforced concrete bridge over the River Spey at Avie, in place of the structure washed away last year. The new bridge is to cost £7,000, and the Council turned down an offer of a wood and iron bridge by the Disposals Board at a cost of £500.

As a result of a round-table conference between Peterborough brickmakers and representatives of the Workers' Union an agreement has been reached for the reduction of wages by 4s. per week in July, and by a further 4s. in October, subject to the proviso that men shall not receive less than 150 per cent. above pre-war wages.

THE Industrial Development Committee of Nottingham have issued a 100-page booklet with a view to placing before the commercial world not only their businesses, but also the importance of the city, the varied nature of its industries, and a complete account of its resources. Several full-page views are given both of prominent features of the town and of historic places in the neighbourhood.

NOTTINGHAM City Council yesterday approved schemes for increased school accommodation at Bulwell, and also in the Wells Road district. A site of about 4½ acres is to be purchased at Bulwell, and on the Brewster's Garden site, off the Wells Road, class-rooms to accommodate 350 children are to be built. For the latter work the tender of Messrs. T. Long & Sons, amounting to £5,898, has been accepted.

THE will has been proved at £217,053 of the late Mr. Thomas Lampard Green, of St. Thomas's Mansions, West-

minster Bridge, S.W., and of Sackville Works, Eagle Street, Holborn, builder and contractor, who died in March. After payment of several legacies, one half of the residue is left to the children of his brother James, and the other half to such charities as his executors may select. We suggest that the Architects' Benevolent and the Builders' Benevolent Societies would be suitable recipients of a generous consideration.

A GENERAL meeting of the supporters of the proposed Engineers' Club was held at the Hotel Cecil, the attendance numbering over 550. In the unavoidable absence of Mr. E. Manville, M.P., the chair was taken by Mr. C. H. Wordingham, C.B.E. After discussion a General Committee was appointed to secure suitable premises and do all that is necessary to bring the Club into being as soon as possible. It was unanimously resolved to ask Mr. E. Manville, M.P., to be the first President of the Club. Mr. Edmund L. Hill was appointed Honorary Secretary. The membership of the Club has now reached over 1,700.

NECOL INDUSTRIAL COLLODIONS, LTD., are exhibiting at the London Fair and Market, to be held at the Royal Agricultural Hall from July 4 to 15 inclusive, on the Stand (No. 16/32 in the main building) of Nobel Industries, Ltd., of whom they are a constituent company, a varied range of Necol Products, comprising "cold" lacquers for brushing, dipping, or spraying brass, silver and other ware, as well as leather products; celluloid enamels in all colours, textile stains for producing decorative effects on textiles, varnishes, household cement in collapsible tubes—an entirely new and effective cement for mending household articles of all kinds, pleasant to apply as compared with the old fish-glue "sticker"; and collodion cotton and nitrocellulose for all industrial purposes. Other products of Nobel Industries, Ltd., shown on this Stand will be "Ironclad" incandescent mantles, bronze and aluminium powders, and specimens of Eley and Kynoch ammunition.

### Housing News.

THE Kiveton Park Rural District Council have invited tenders for the erection of fifty-five cottages at North Anston, for which Mr. H. L. Paterson, 19 St. James's Street, Sheffield, is the architect.

THE Foleshill Guardians and Rural Council have received forty-four tenders for houses at Bedworth, twenty for houses at Binley, fourteen for houses at Holbrook, and sixteen for houses at Keresley.

THE Housing Commissioner for North Wales (Mr. James Evans) met the Mold Urban District Council last week with reference to the scheme for the erection, at a cost of £40,410, of sixty-four workmen's dwellings. It was announced that the scheme had been sanctioned by the Ministry of Health and authority to borrow the money had been received. The work was to begin at once.

At their meeting on the 8th inst. the Alfreton Urban Council agreed to seek tenders for the erection of seventy-four more houses at Alfreton and Swanwick. The Housing Commissioner turned down the offer of Mr. R. C. A. Palmer-Morewood to sell the Council houses cheaper than they could build because he had already received the subsidy of £260 on each house before selling them.

THE attention of the South Shield Housing Committee has been drawn by the Housing Commissioner, Newcastle, to the very serious brick shortage at the present time, and asking them to consider the advisability of adopting some simple form of concrete walling which would enable the Corporation's scheme to proceed with much greater expedition, and at the same time relieve the brick supply.

At the last meeting of the Housing Committee for the Upper District of Renfrewshire tenders for forty-eight houses at Gateside, near Barrhead, amounting to £40,212, were accepted, as were tenders amounting to £21,261 for twenty houses at Newton-Mearns. Intimation was made that the Board of Health approved of a site in Yoker Road for a tenement scheme.

At a meeting of Jarrow Town Council held on the 9th inst. the Housing Committee reported that they had instructed the borough engineer to submit a tender for direct labour, and also obtain tenders for the erection of about 314 additional houses, with a special instruction that the Building Guild, Ltd., be asked to tender. The Palmers' Shipbuilding and Iron Co., Ltd., offer 5,000 tons of slag free of charge, was accepted. The Ministry of Health approved a direct labour contract at £35,130, and the borough engineer had been instructed to proceed with the work. The report was adopted.



## CONTENTS.

Sir Edwin Landseer Lutyens, R.A. . . . .	PAGE 425	Building Industries' Consultative Board . . . . .	PAGE 430
Illustrations: Notes and Comments . . . . .	426	Correspondence . . . . .	430
London Art Galleries: Art News of To-day . . . . .	427	Dispute about Architect's Fees . . . . .	431
Royal Institute of British Architects . . . . .	428	The Economic Unit Principle Applied to Large Cities . . . . .	432
Forthcoming Events: Competition News . . . . .	423	The late Maurice Pocock . . . . .	433
The Lay of Our Last Minister . . . . .	429	Progress in Building Working-class Houses in London . . . . .	433
Cricket—Society of Architects v. Architectural Association . . . . .	429	The Royal Sanitary Institute . . . . .	433
		No. 20 St. James's Square . . . . .	434

## Sir Edwin Landseer Lutyens, R.A.

SOME men obtain honours because they make their acquisition an end in itself, while in other cases achievement brings with it honours and distinctions which have never been sought. They form in such cases the milestones which mark the estimation of a man among his fellows. No one who knows Sir Edwin Lutyens could picture him as a man desirous of obtaining distinctions or honours, or over estimating their importance, for all recognise that he belongs to the small number of those whose independence of mind emancipates them from dependence on the praise or blame of others. The work created by Lutyens's imagination is to him more real than the conventions of the world in which he lives, the successful accomplishment of his ideals in work a greater satisfaction than any material return which work can bring him. Doubtless, like his fellows, he likes appreciation, but it would never mean to him what it means to less independent and more limited minds, and we instinctively feel that he would appreciate good criticism of his work which appealed to his mind and enjoy it, but would reject with indifference conventional appreciation which was not marked by critical judgment.

That he should, at the age of only fifty-two, be a Royal Academician, the recipient of the Royal Gold Medal, and one of the selected architects for New Delhi, marks high achievement, but the best of his work will in the future be regarded as a greater distinction than any appreciation gained by it. He has, we hope, still a long career before him, and the end of such a career may very possibly give him a place among the greatest architects of English history.

We say may, because, notable as his work is, and greatly as it has enriched English architecture, few of his executed buildings have belonged to the class of monumental design by which the lasting fame of an architect is chiefly determined.

England is rich in great historic houses, the designers of which are hardly known or even forgotten; nor do future conditions make it probable that any architect will be likely to be called on to emulate the works of past centuries in scale or in type. The bulk of Lutyens's houses belong to that division of building which affords ample architectural scope but which will not compare in scale with those of past centuries.

In addition, they are the work of a man who, experimenting here and there, and doing notable and interesting work everywhere, has been working out themes suggested to him by circumstance rather than expressing the ultimate convictions which ripen years bring. There is, in a word, a tentative character about many of his houses which is altogether different from the more definite traditional note struck by Norman Shaw. Lutyens has tried a larger range of notes than Shaw, and his work is marked by an experimental tendency which is completely absent

from that of Shaw and from those of his followers. Shaw, in a word, founded a definite school based on tradition, which has enriched our domestic architecture and made it the first in the world. Lutyens has tried new themes, but has not carried any of them to an ultimate end; his work, like his mind, is in a plastic condition of receptiveness.

But it is amazing that an architect who has been so closely connected with domestic work should have shown the great promise of Lutyens in other fields. We should be justified in saying that, simple and small as it is in scale, no piece of monumental architecture was ever more absolutely successful than the Cenotaph in Whitehall. Its success was shown by the approval accorded to it by the public, as that approval was the more remarkable because the average man does not as a rule appreciate monumental design. Yet here we have an example of work which is absolutely severe and without ornament, and which yet appeals to the imagination of men of all classes and degrees of education.

Of Delhi it is as yet too early to speak, for the published drawings, though marked with great promise, naturally convey no very clear idea of the ultimate effect of the design. We do not know whether the problem of designing a building which will express both Eastern and Western ideals will be solved, or whether the result will be an addition to the number of fine but tentative experiments the architect has made in other fields of design.

For Lutyens is the least dogmatic of architects, and rather resembles a scientist who is continually experimenting in his search for new truths. As Newton discovered the law of gravity by a chance occurrence, it is possible that Lutyens may discover a new law of design. All we can say with certainty is that he will accept no final conclusions and adopt no definite type till he has satisfied himself; and that he will never be satisfied with the cheap and easy way to success which would content the average man, for his own standards will always be more exacting than any which others will apply to his work.

It is, perhaps, in the field of garden design and arrangement that he has achieved the greatest definite results. None of the great designers of the past have been so completely successful in the creation of scenic masterpieces or in the manipulation of the question of Art and Nature called into being in the design of the formal garden.

The future is unknown to us, but it is quite possible that we have only seen the opening stages of the career of one who may be destined to occupy a commanding position in the temple of Fame, and whose achievements have already given a great impetus to the vitality and spirit of our national architecture. His colleagues will wish him every success, for such work as he has done, and that which we confidently expect from him, both enriches an art and raises the emulation of those who practise it.



## Illustrations.

THE WORK OF SIR EDWIN L. LUTYENS, R.A.:  
WAR MEMORIAL, SPALDING. PREMISES FOR THE THEOSOPHICAL SOCIETY, UPPER WOBURN PLACE, W.C.  
F. R. MEMORIAL ART GALLERY, JOHANNESBURG.

## Notes and Comments.

### The late Maurice Pocock.

WE give elsewhere an admirable note on Maurice Pocock by Mr. Baillie Scott, but having known Maurice Pocock for many years we wish to express our agreement with all Mr. Baillie Scott says. It is very rare in life that we meet men who are entirely oblivious to worldly advantage, but no one could meet Pocock and imagine for an instant that any ulterior consideration of personal advantage could weigh with him. Few of his houses have been illustrated, but an examination of them always convinced us of their outstanding excellence. No man has been less influenced by a desire to do "clever work," with the result that his work will pass into the great body of what is best and most worth keeping in the annals of the past, for he was a true survivor of the great body of English master builders to whom we owe so much. The Carpenters' Company, of which he was one of the most outstanding members, will miss his useful activity in lending his unstinted aid to anything which made for excellence in craftsmanship. If his views were in some ways extreme, they were the outcome of absolute conviction, and there are many who, with less sincerity and purpose, have had a wider influence precisely because they were respecters of persons, whereas Pocock was quite capable of martyrdom for an ideal.

### The Amalgamated Housing Industries, Limited.

A GREAT industrial undertaking has been inaugurated under the above title, for the success of which we have every good wish. Its directorate is a strong one, and it has enlisted in its service an able advisory committee of consultants and also consulting architects and surveyors. Its share capital is £650,000, to be expended in acquiring and working brickfields, concrete systems, timber yards, and other adjuncts of the building trade, including the provision of transport facilities, the whole of which are to be utilised to enable the promoters to carry out building operations at a reasonable cost by eliminating high profits and by utilising mass production.

At the luncheon given last week at the Savoy Hotel, Mr. Clynes made an admirable speech which was perfect in form and substance. In it he urged the paramount importance of good housing as a cure for industrial unrest. Of two methods he said he would have preferred a system of State housing, but experience having shown him that it had utterly failed he was convinced that the solution of the difficulty must be by means of enlightened private enterprise. He urged that all work, whether of hand or brain, should be properly and adequately paid, that the worker and employer should both do their share, while he clearly emphasised the all-important necessity of taking a wide view of the basis upon which our national prosperity mainly depended—the maintenance of a great export trade.

Sir Charles Ruthen, in moving a vote of thanks to Mr. Clynes, said that the Government had in some quarters been somewhat unfairly attacked. He found that gross profiteering had characterised the actions of building-trade employers and merchants, and that under-production and slackness were not the only reasons for the failure of the Government scheme. He hoped he would be the last Director of Housing, and looked forward to the time when housing would again be wholly dealt with by private enterprise. We are convinced that Sir Charles would not have made the allegations he did if he had not sound and substantial proof for his assertions, and we hope to see the deeds of the new head of the Ministry deserving praise as unstinted as the blame which facts compelled us to mete out to the administration of Dr. Addison.

### Ways and Means.

DIFFICULTY has been caused in many districts where housing has been carried out by the legal limitation which confines a water company's area of operation. In a case known to us some houses were built on the edge of a water company's area and more than a mile away from its nearest main, while another company's main was comparatively near at hand. The legal difficulty alluded to has resulted in the sinking of a well—always an awkward expedient, and one which renders the provision of a bathroom almost useless. The average working-man, or, indeed, almost everyone, will not avail themselves fully of services which mean time and labour. It would be better in such cases to cut accommodation out and reduce housing to simpler proportions than is contemplated in the regulations of the Ministry of Health. The question of the extension of all mains is now a difficult and usually a costly one, but we feel that the consumer should be able to exercise a right of dealing with the company having the nearest main, whether for water or lighting, if the company in whose district the building is will not place him on an equally favourable footing.

### The Dublin Custom House.

As we expected, the destruction of the Dublin Custom House is only partial, and it is probable even in these difficult days that an expenditure of something like £120,000 would suffice to restore it. This being so we can say with confidence that it will be undertaken and that the necessary work will be put in hand without great delay because the building is not a white elephant, but one of the most necessary of public buildings. What we have to fear in such a case is that "restoration" may be entrusted to the wrong man, or, may we breathe the word, to a "Department." Gandon was a great architect, and it would be a disaster if the restoration of his work were not placed in good hands. What is wanted is a good designer versed in the traditions of the eighteenth century, and it would be well in every way were the commission put into the hands of an Irishman. Ireland has not in our time produced many architects of great note, but there are a few men who might fittingly be entrusted with the work, and whose knowledge of the eighteenth-century traditions of Dublin would be invaluable and enable them to give the local note which is fitting and desirable.

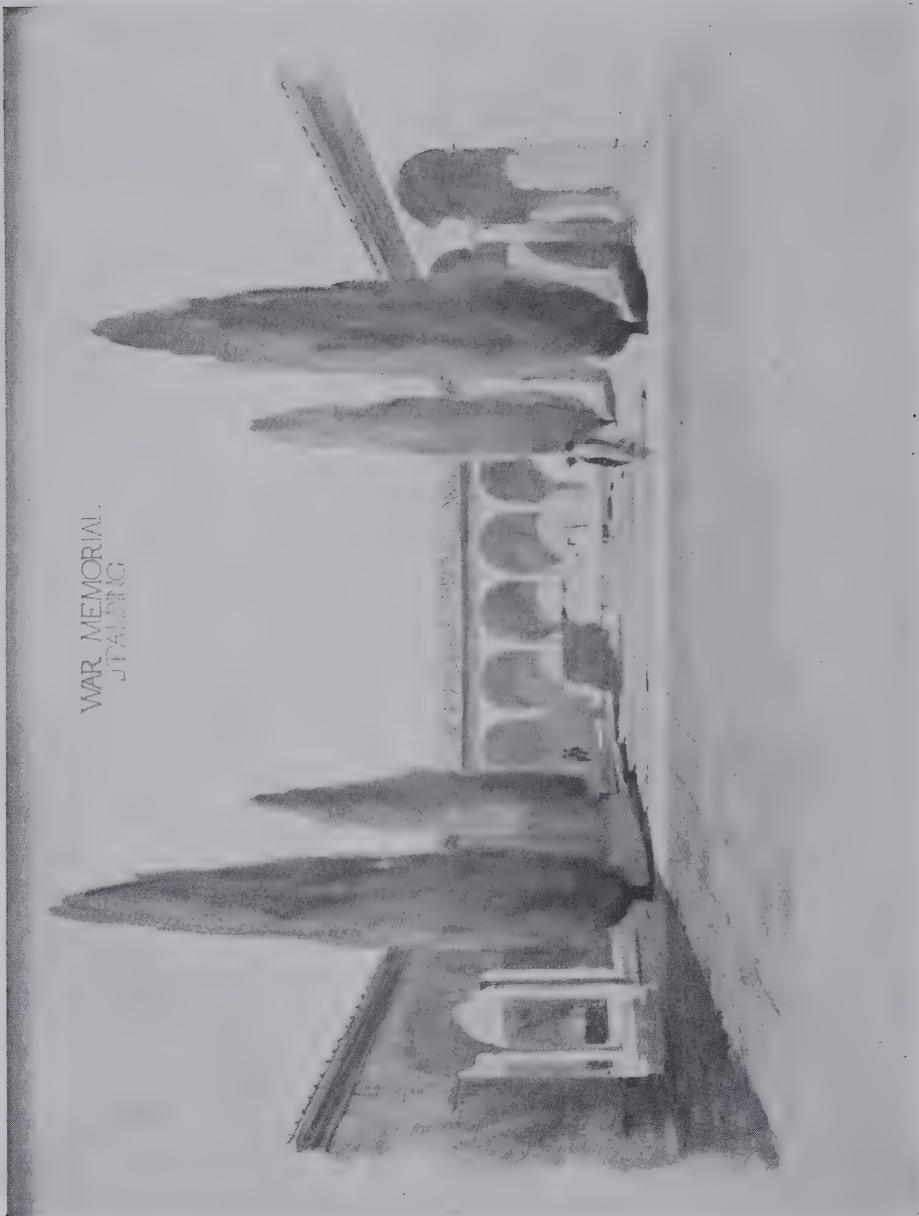
### Mr. Keen's Letter.

WE wish to call attention to the letter of Mr. Arthur Keen given this week in which he calls attention to clauses in the Unification Committee's Report which appear to have been overlooked by those who have signed the manifesto we published. As we said, Unification must be a prelude to Registration and the course suggested by the memorialists would retard and not advance matters. We may not be in entire agreement with the committee's report, but we recognise that no report would be likely to entirely commend itself to all, and that any course adopted must be one of compromise.

THE King's Gold Medal for the year 1920 was awarded, on the recommendation of the Royal Institute of British Architects, to the most famous of living French architects, Monsieur Charles Girault. Monsieur Girault was to have come to England in May to receive the gold medal at the annual banquet of the R.I.B.A., but the industrial crisis made it necessary to cancel that arrangement. Through the courteous assistance of the Foreign Office, the Royal Medal has accordingly been dispatched to Paris, and Lord Hardinge, the British Ambassador, will present it to Monsieur Girault at the Embassy on behalf of His Majesty.

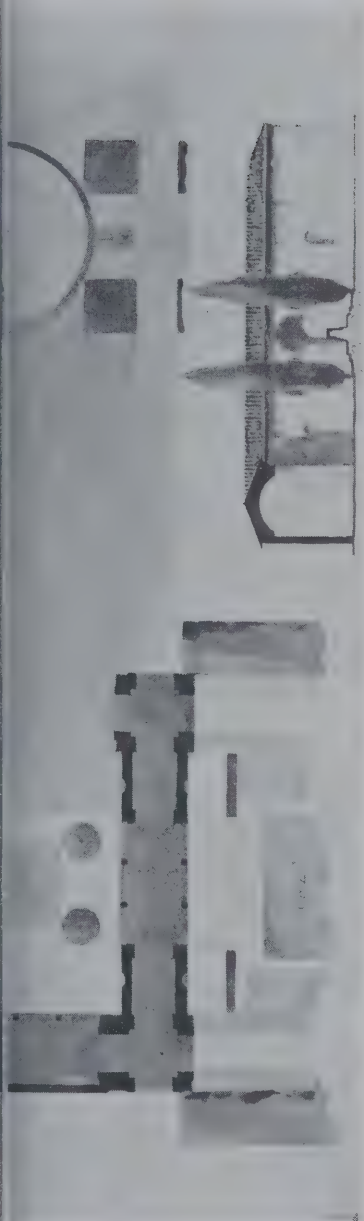


THE LIBRARY  
OF THE  
UNIVERSITY OF ILLINOIS





E 24th, 1921.



YENS, R.A.







THE LIBRARY  
OF THE  
UNIVERSITY OF ILLINOIS

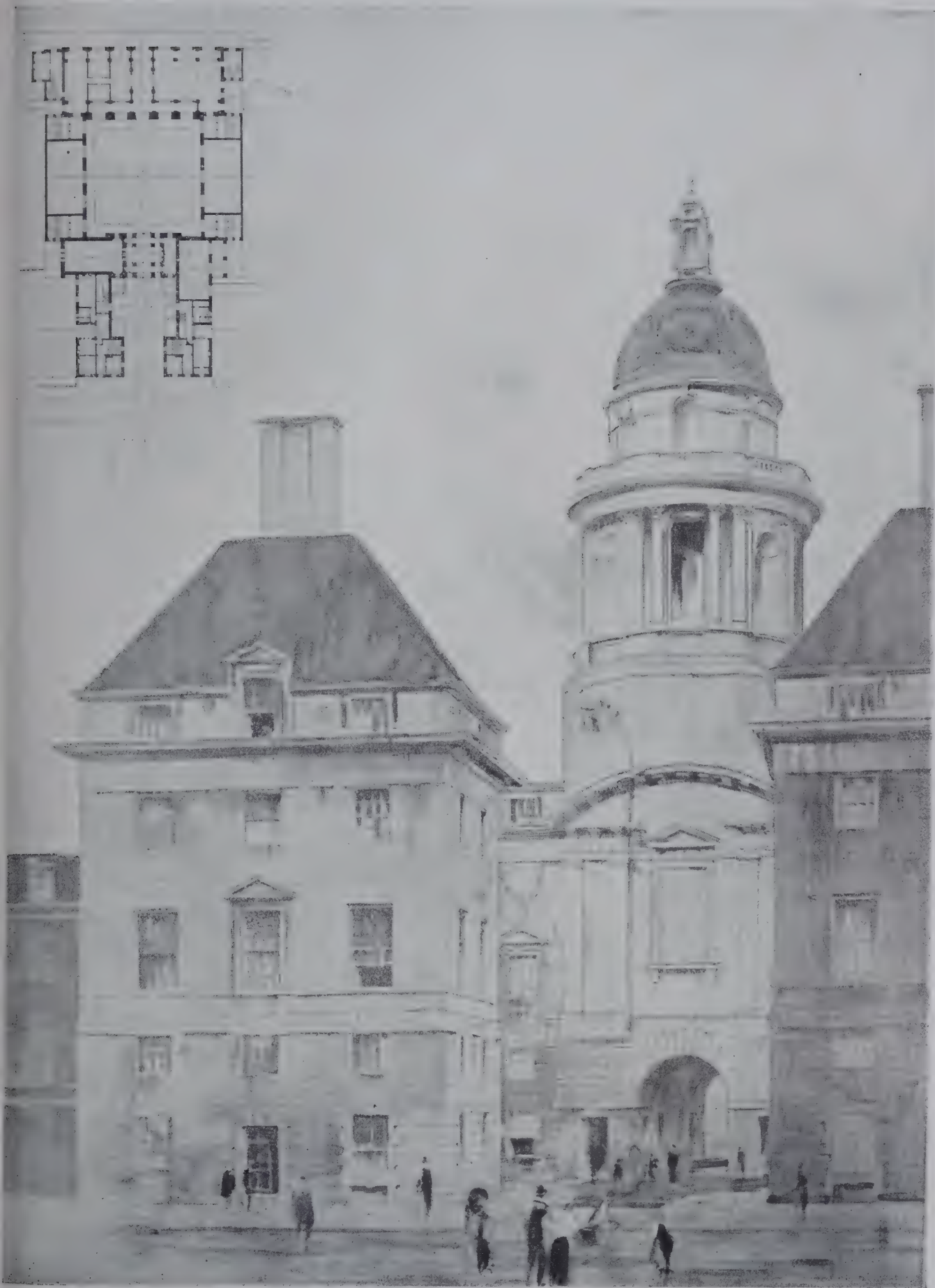
THE ARCHITECT, JUNE 24th, 1921.

SOUTHAMPTON WAR MEMORIAL



THE WORK OF SIR EDWIN L. LUTYENS, R.A.



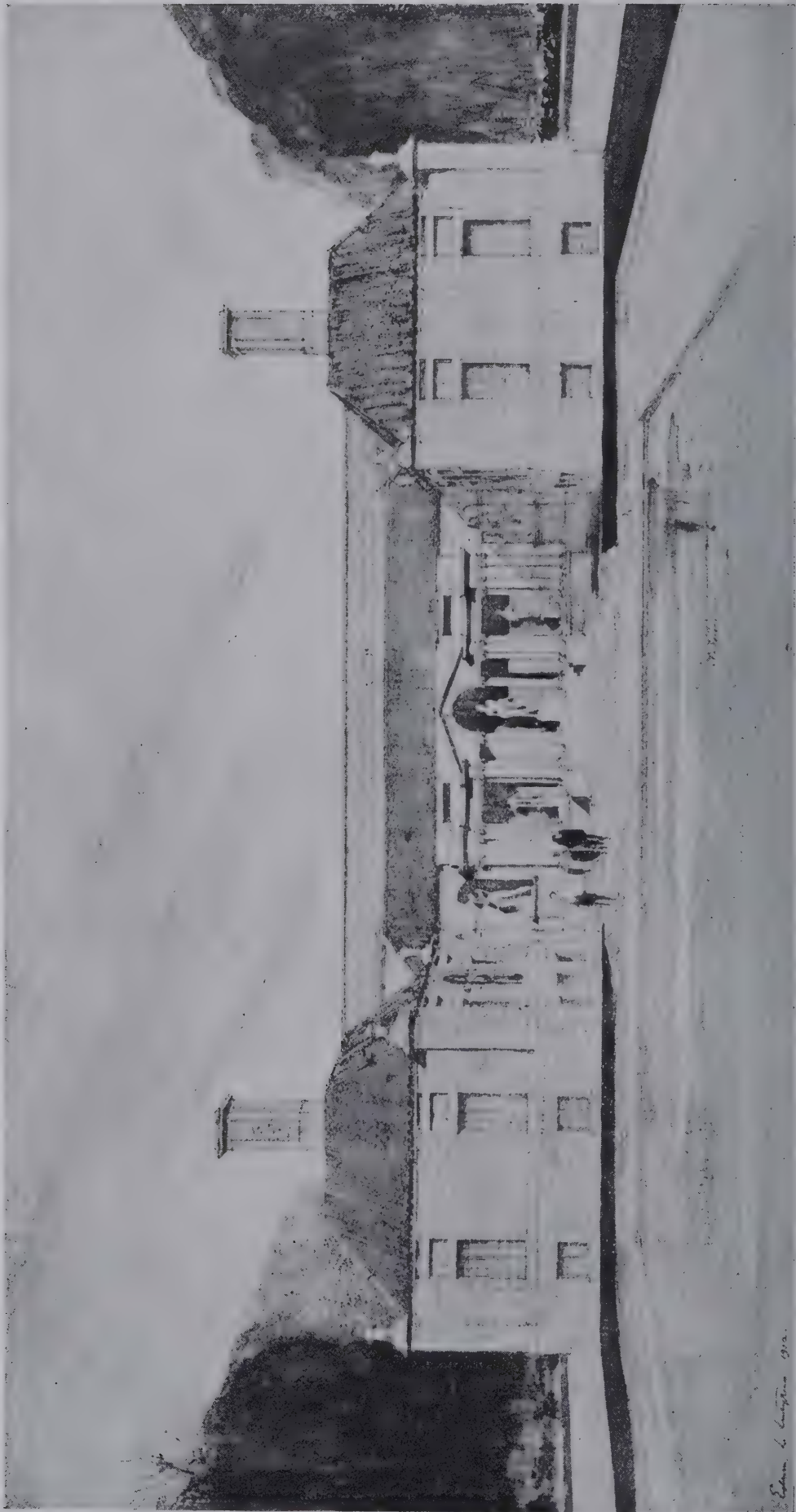


PREMISES FOR THE THEOSOPHICAL SOCIETY, UPPER WOBURN PLACE, W.C.  
THE WORK OF SIR EDWIN L. LUTYENS R.A.

THE LIBRARY  
OF THE  
UNIVERSITY OF ILLINOIS



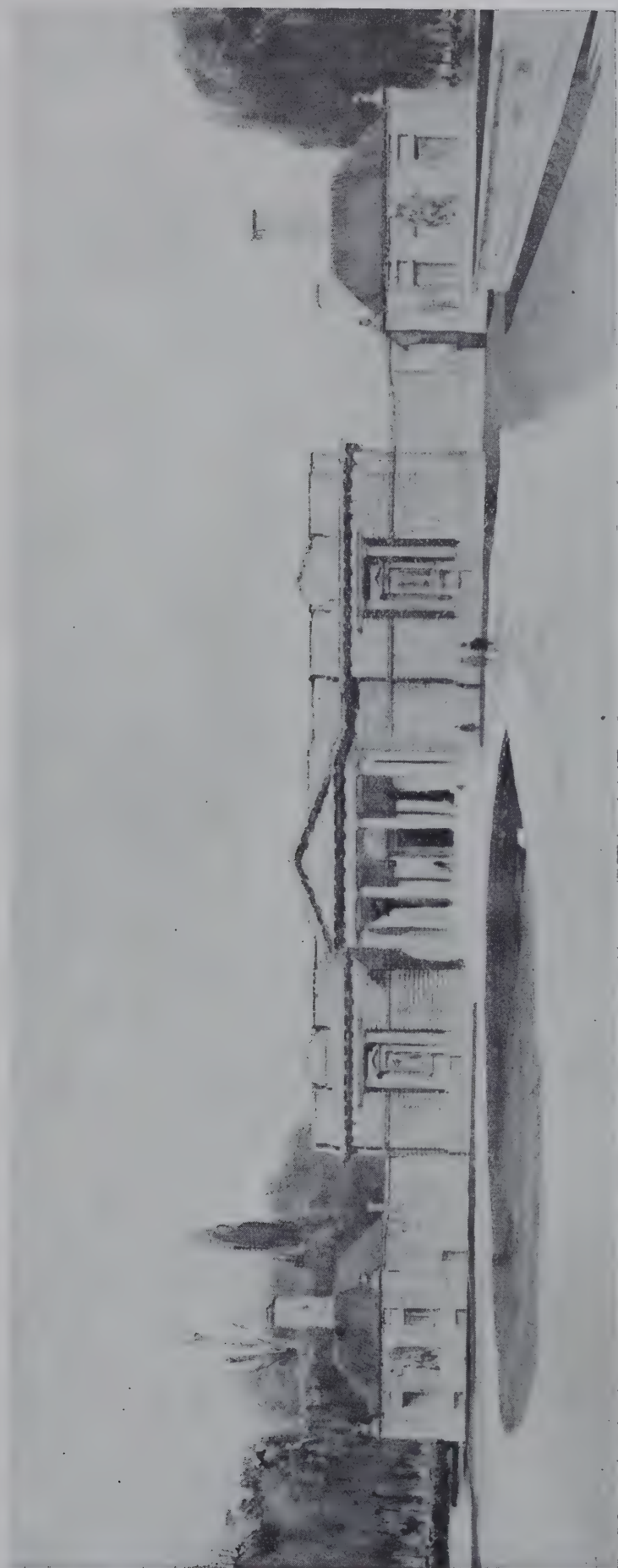
THE LIBRARY  
OF THE  
UNIVERSITY OF ILLINOIS



ART GALLERY, JOHANNESBURG.  
THE WORK OF SIR EDWIN L. LUTYENS R.A.

Edwin L. Lutyens 1912.





ART GALLERY, JOHANNESBURG.  
THE WORK OF SIR EDWIN L. LUTYENS, R.A.

THE LIBRARY  
OF THE  
UNIVERSITY OF ILLINOIS



## London Art Galleries.

(All rights reserved.)

On Thursday last, June 16, the veil of secrecy was lifted at the Grosvenor Galleries, and "The Nameless Exhibition" became the "No longer Nameless Exhibition." The result was interesting, even if it did not reveal any startling surprises: personally, I must own to one or two bad guesses, although I find I was right in the Lavery family group in the Large Gallery, in the "Lost Fawns," by Harry Morley in the next room, in the John Nash landscape and the Cadogan Cowper portrait in the same room, and the J. J. Shannon ("The Sèvres Dish") and Alvaro Guevara ("Miss Iris Tree") in the Corner Room. Two paintings which I mentioned specially but could not see my way to locate, the "Nude"—a back view of a girl—in the Long Gallery, and nocturne of "The Monastery" in the Corner Gallery, are by Mr. Hughes Stanton, R.A., and by Mr. Melton Fisher, A.R.A.; and the "Himalaya" and "Bather," which I noted in the Small Gallery, are by Glyn Philpot, A.R.A., and Sir William Orpen, R.A. It may be assumed that in an exhibition held on these lines the public and the critics judge every work absolutely on its merits: but the fact seems to emerge that much of the best here belongs to well-known names. I do not myself know well the work of Mr. Albert Rutherston: but I consider that his drawing of "Chloe" here possesses remarkable decorative qualities.

I proposed last week to return to Mr. A. B. Cull's water-colour drawings of "Burma and the East," which are on view this month at the Brook Street Gallery, a little further up New Bond Street. Mr. Cull may be said to almost bisect his present exhibition into two different subjects—one being "The King's Ships," which is a clever series of sketches of our battleships, frequently when in action during the Great War, a series handled with knowledge and skill. But his other series of Burma, some thirty-two studies in all—this land of great sunlit rivers, of "Paddy-boats" with strange carving and great sails, of wonderful tapering pagodas, emerging like spiral pyramids white against the blue heaven, of lonely marshes haunted by the buffalo, and ancient cities, such as Amarapoora, which the long centuries have slowly crumbled into ruins—opens such a fascinating and little-known field, both in art and architecture, that we almost regret that the artist had not given up his whole space to this theme.

At Walker's Galleries last week was opened an exhibition of sketches and water-colour drawings by early English masters of water-colour and a few foreign artists. These exhibitions are now an annual feature in this Gallery, and one which is of real advantage for the study of our water-colour artists. On this occasion a feature is the specially fine display of the art of Thomas Girtin in a group of seven extremely fine paintings, among which the most remarkable are the "Warwick Castle," the study of "Lindisfarne or Holy Island Abbey," with its magnificent ruined arches, and the "View of Putney," showing the old church and the picturesque wooden bridge of earlier days, still spanning the river. Charles Bentley, who was a member of the old Water Colour Society from 1805-1854, shows well here, as well as that fine water-colour artist, William Beverley, whose "Old Jetty" and "A Hot Day," with boats and figures, are in his free, broad method; and an artist whom I know less of, Tom Collier, won my admiration by his treatment of trees and clouds in such studies as his "Sheep in Lane" and "Cart on the Moors." Following the next wall we come

to the clever caricatures of Nathaniel Dance, either social—"A Study in Bonnets"—or political, and the classical landscape art of E. Dayes, whose "Diana and Calisto" is in the tradition inherited from Claude Lorraine. The new and living art of the English School comes before us in a fine painting of his contemporary, J. R. Cozens, whose study here of "Part of the Belvedere at Rome" is a noble and dignified creation. Not less so are the two paintings here by Peter de Wint, the guide and master of Onorato Carlandi, whose modern water colours have had such a success in this Gallery. De Wint's "Lincoln Cathedral" here is a superb painting, finely drawn and composed, rich and warm in colour. The same wall contains fifteen of Thomas Rowlandson's studies of figures with landscape; while after these Clarkson Stanfield's "Cathedral at Abbeville" is magnificent in its rich architectural details, and the exhibition closes appropriately with two delightful little paintings by J. M. W. Turner, the "Geneva" and "Dunbar," this last painted to illustrate Sir Walter Scott's "Antiquities of Scotland." Before leaving we may give a last look to the group of paintings here by Girtin, who was born only a year before Turner, and of whom it has been remarked that, had he lived longer, he might have rivalled Turner himself in the greatness and range of his efforts.

In the same room with these water colours is being held an exhibition of portrait statuettes by Ivie A. McCarthy, who includes in her sitters for these diminutive full-length figures Lord Northcliffe, Cyril Maude (one of the most successful), H. G. Wells, W. Somerset Maugham, Sir Harry Lauder, and among the ladies Dame Clara Butt, Miss Laurette Taylor, and a very alive little study of Lady Astor. The interest in these little figures, apart from their plastic quality which is not remarkable, lies in the likeness; and here in several cases the artist has been very happy.

Exhibitions of some importance, which I shall treat in a later issue, are those of the Women's International Art Club at the R.B.A. Gallery, the etchings by E. S. Lumsden, Blampied, Lee-Hankey, Troy Kinney, and Charles W. Cain, opened last week at the Greater Galleries, and works of the Modern British School at the Goupil Gallery. Besides these, Messrs. Agnew's Galleries in Old Bond Street and the Eldar Gallery have recently opened exhibitions.

S. B.

## Art News of To-day.

THE sale of the Duke of Beaufort's old English lacquer at Messrs. Christie's on Thursday, June 30, will also include some very fine French and English furniture, the latter of the Chippendale period. The old English lacquer commodes, which will be on view the two days preceding, are of exceptionally fine quality, adorned with Chinese landscapes and mounted in ormolu. On Tuesday, July 5, the collection of Arms and Armour, formed early in the nineteenth century by the late John Beardmore, comes up for sale.

At Sotheby's a collection of mezzotint translations of Rembrandt's works by Valentine Green and others created a good deal of interest recently, and brought very good prices, the first day's sale totalling £2,346.

Whistler's palette and a brush which that artist had used found their way into the sale-room at Puttick's last week, and were bought, possibly to be treasured by some admirer of his pictorial genius, for £64.

The admirable series of articles upon the "Tower of London," which appeared lately in the "Daily Telegraph," by Mr. Walter Bell, are now published in an attractive book form, with Hanslip Fletcher's illustrations, by Mr. John Lane.



## Royal Institute of British Architects.

A GENERAL meeting of the Royal Institute was held on Monday last, the 20th inst., at 9 Conduit Street, W. Mr. John W. Simpson, president, in the chair. As the occasion was the presentation of the Royal Gold Medal there was a large and distinguished company present.

The usual address was given by Mr. Simpson, who, however, dealt only in general terms with the work of Sir Edwin L. Lutyens, and did not give the customary biographical sketch.

### PRESENTATION OF THE ROYAL GOLD MEDAL.

The President began by saying there was no reward so precious to an artist as the approval and admiration of those who practise his own craft. When his art is that of an architect that fact was specially true. The architect's work appeals less practically to popular emotion than does that of a man of letters, of a musician, a painter or a sculptor. So it is always to his own folk that the architect turns for some knowledge and test of the qualities of his own work; it is to them he turns for appreciation and encouragement, and he does it with a very confident assurance. It was due to his brother architects to say that admiration for fine work is never withheld by them. There was no profession so little affected by jealousy; none in which the success of another of the fraternity is welcomed with such honest pleasure as their own. The great compensation to men following a strenuous calling in which honours are comparatively rare is the certain knowledge that their rivals will be the first to acknowledge merit. No profession is so united, so loyal to its chiefs, so generously appreciative as that of architecture. In the case of Sir Edwin Lutyens it was not very difficult to understand why they were very proud of him. His genius had brought him into great prominence, and architects feel he has carried them all forward with himself—each shines a little brighter in the glory reflected from Sir Edwin. He had asserted the supremacy of the art they loved, and he had taught the public to understand it. It was, therefore, natural for the Royal Institute to consider him as worthy to receive the Royal Gold Medal. The position of the Royal Institute was unique. No other body of architects has, or ever has had, the privilege of bestowing so great an honour. The members of the Institute have been entrusted since 1848 with the duty each year of submitting to the sovereign the name of an architect they deem worthy of special distinction. Their choice is not limited to men of their own country or profession. Canada, Austria, America, Italy, Holland, and, above all, France, have seen their great architects recognised by the ruler of Great Britain equally with his own subjects. An architect who receives the Royal Gold Medal of the British Institute is marked throughout the civilised world as one of the princes of his profession. There could be no need to introduce to the audience Sir Edwin Landseer Lutyens, the man was known to them and also his work. He had had great opportunities, and had been equal to them. His design is informed with a fresh mind, with a freedom of fancy all its own; and it ranges from Delhi to Whitehall. Mr. Simpson said that to him as an architect the Cenotaph seemed the greatest of his achievements; an extremely remarkable thing precisely suited to its surroundings; perfect in technique it was the perfect expression of the qualities which made great those whom it commemorates and those who made it. They congratulated Sir Edwin on the honour His Majesty had done him in conferring the Royal Gold Medal on him. And they congratulated themselves on being able to add the name of Sir Edwin Lutyens to the roll of great men who had preceded him, with Charles Robert Cockerell, Sir Charles Barry, George Edmund Street, Sir G. Gilbert Scott, Joseph Louis Duc, Charles Garnier. And to Sir Edwin it would be especially gratifying to stand beside his veteran master Sir Ernest George.

Sir Edwin L. Lutyens after being invested with the Medal said, "With all humility I say Thank you. I can say no more."

### TRIBUTE TO THE PRESIDENT.

Mr. Arthur Keen, Hon. Secretary, asked the members to express their thanks to Mr. Simpson for all he had done on their behalf during the two years he had served as President. What that was probably no one knew better than himself owing to his position as Hon. Secretary. Mr. Simpson had shown extraordinary capacity for dealing with affairs and had not spared himself at all or taken a day of respite from his task. He had hardly started his duties before the doctors put him aside for two or three months. In spite of that, as soon as the doctors let him he came back to work and became as active as he had intended to be. Mr. Simpson had certainly made his term of office quite remarkable for the real significant work carried through. It was fitting they should express their thanks to him at that final meeting.

The vote was passed by acclamation.

Mr. Simpson said they seemed to have come there under a misapprehension. The honoured guest was Sir Edwin Lutyens so it would be extremely out of place for him (the speaker) to make a speech. Sir Edwin, moreover, had set a most admirable example of saying very little and that little very much to the point. That example he would follow and reply from the bottom of his heart "Thank you."

### FUTURE MEETINGS.

The Hon. Secretary announced that a meeting to confirm the Resolutions passed on June 6 amending the By-laws relating to Hon. Associates will be held on Monday, June 27, at 5.30 P.M.

He also announced that to enable special general meetings for various purposes to be held during July the duration of the Session has been extended to July 31.

## Forthcoming Events.

*Friday, June 24.*—Royal Institute of British Architects.—Opening of first Annual Provincial Conference of Architects at Liverpool (two days). 10.30 A.M.

—London Society.—River Trip to Greenwich or beyond. Leave Westminster Pier 5 P.M.

*Monday, June 27.*—Royal Institute of British Architects.—Meeting at 9 Conduit Street, W., to amend By-laws relating to Hon. Associates. 5.30 P.M.

*Tuesday, June 28.*—British Archaeological Society and Lincoln Archaeological and Architectural Society.—Joint meeting at Lincoln (five days).

—Royal Institute of British Architects.—Afternoon Reception at the Zoological Gardens, Regent's Park, N.W. 4 P.M.

*Wednesday, June 29.*—Cricket match on the A.A. ground at Elstree. R.I.B.A. v. Architectural Association.

## Competition News.

THE Wandsworth Borough Council invite landscape architects and gardeners to submit competitive schemes for laying out for the purposes of a park and recreation ground about 31 acres of land between Garratt Lane and Buckhold Road, Wandsworth. A copy of the conditions of competition and plan of the site may be obtained from the borough engineer, Mr. P. Dodd, M.I.C.E., 215 Balham High Road, S.W. 17, on payment of £1 1s., which will be returned to bona-fide competitors. Designs must be submitted by September 5. Premiums of 100 guineas and 50 guineas each respectively will be paid to the authors of the schemes placed first and second by the Council.

THE Birmingham War Memorial Committee invite designs for proposed war memorial on a site at the corner of Broad Street and Easy Row. Premiums of £500, £300 and £200 will be awarded for the designs placed first, second and third respectively. Sir Reginald Blomfield, Litt.D., R.A., has been appointed assessor in the competition. Conditions of competition, instructions to architects, and plan of the site with sections may be obtained upon application to Messrs. H. M. Francis and H. H. Humphries, M.I.C.E., joint honorary secretaries, Council House, Birmingham, on payment of a deposit of £1 1s., which will be refunded on receipt of a bona-fide design or the return of the printed particulars on or before July 1. Competitors must have occupied offices in Birmingham for a period of six months prior to the date of the announcement.



The Lay of Our Last Minister.

Sir Alfred in his office  
Says let's count again the needs,  
And when I get the figures  
You shall not wait for deeds.

But I'm a man of business,  
Of balance sheets, and these  
Have taught me the discretion  
And tact men mostly need.

I shall not square the circle  
Or make another start  
By promises the end of which  
May place me in the cart.

For when the people suffer  
From bureaucratic sway  
They have an awkward memory  
Upon the polling day.

My predecessor's policy  
Was doubtful to the core,  
And would, had it been carried out,  
Have cost the people more.

Much more than they are willing  
To furnish as a gift  
In order that the working man  
Should have another lift.

Prime cost plus profit systems  
Contractors often say  
Will save their clerks some figuring  
For which the clients pay.

Now building costs are swollen,  
And many share the spoil;  
Economy has been dismissed,  
And conscientious toil.

So far we like the policy  
Attributed to Mond,  
But not at present shall we raise  
A really joyous song.

Till bureaucrats are banished  
And taxpayers get rest  
We will not cease from fighting  
At anyone's request.

The workers who want houses  
Should pay in weekly rent  
Fair interest on capital  
On their requirements spent.

But when the lordly superman  
Leaves us to ply our trade,  
With spade and axe and drawing-  
pen

Then will we leave the shade  
Cast by the politician  
Who'd make a brand-new earth,  
In doing which he'll not forget  
To make himself a berth.

When that time comes we'll  
celebrate—  
That is, if we're alive,  
For income-tax collectors  
Are buzzing in their hive.

If Mond can smooth the tangle out  
And leave us free once more  
He'll earn our thanks and honours,  
And great will be his score.

The Society of Architects v. The Architectural Association.

THE Cricket Match between The Society of Architects and the Architectural Association at Elstree, on Friday, June 17, resulted in a win for the latter by 69 runs.

The A.A. won the toss and elected to bat first. The batting at first displayed no great confidence, and when lunch was taken the A.A. had lost 4 wickets for 32 runs. The fifth wicket fell soon after lunch, with the score at 59, but after this a prolonged stand was made by A. S. Knott and G. H. Crickmay, who put on 128 runs for the sixth wicket, and completely altered the complexion of the game. The Society's bowling went to pieces, and the bowlers could get no assistance from the hard pitch; the Society also lacked the services of a really fast bowler, all the bowling being medium to slow. Knott compiled a very good 109, giving two possible chances at the later stages of his innings. Crickmay scored a fine 56, giving no chance. The seventh wicket fell with the score at 187, and the remaining wickets added 20 runs. Apart from excellent wicket-keeping by Cumberlege the Society's batting was ragged, but this was partly owing to the heat and the bumpy outfield.

Cumberlege and Bennett opened the Society's innings, and at once commenced to score freely. After the first bowling change Cumberlege mis-timed a shot to leg, and was well caught by fine-leg fielding deep, after scoring an attractive 24. Gainsford, who went in at the fall of the first wicket never looked like scoring, and was bowled by his third ball. Beard followed, and looked like settling down, when he had hard luck in being run out by a long throw-in from square-leg which hit the stumps. Hubbard, who followed him-was quickly bowled. Bennett had bad luck in being bowled by Parker with a ball that bumped over his head and dropped on the stumps. He had compiled an attractive 41, and looked set for a century. Something like a rot had been setting in, 4 wickets falling for 19 runs. Capt. Kiddy tried hard to stop the rot, going in two hours before stumps were drawn, and staying at the wicket for an hour and quarter to score 17, mostly singles. The A.A. bowlers were keeping an excellent length, and sending down very few loose balls. Kiddy received valuable assistance from Whitworth, but when the pair looked well set to play out time, the former was bowled by a short pitched ball from Parker that shot into the stumps. The last wicket fell a quarter of an hour before time, with the score 128.

The game was very enjoyable, and it is hoped that a return will be fixed, probably early in September.

SCORES.

The Architectural Association.

A. S. Knott, b. Hubbard . . . . .	109
F. N. Young, b. Pinfield . . . . .	1
M. H. Nicholls, c. and b. Pinfield . . . . .	1
H. Pakington, run out . . . . .	0
G. E. McLeavy, c. and b. Dyche-Teague . . . . .	4
J. K. Parker, b. Hubbard . . . . .	2
G. H. Crickmay, c. and b. Beard . . . . .	56
R. A. Livett, b. Hubbard . . . . .	0
H. Donaldson, l.b.w., b. Beard . . . . .	4
B. Wallis, b. Hubbard . . . . .	1
S. B. Caulfield, not out . . . . .	0
Extras: Byes, 8; leg-byes, 7 . . . . .	15
Total . . . . .	197

The Society of Architects.

B. S. Cumberlege, c. Pakington, b. Young . . . . .	24
C. Bennett, b. Parker . . . . .	41
H. E. Gainsford, b. Young . . . . .	0
J. S. Beard (capt.), run out . . . . .	7
P. W. Hubbard, b. Parker . . . . .	2
F. C. Dyche-Teague, b. Young . . . . .	4
Capt. M. G. Kiddy, b. Parker . . . . .	17
E. A. G. Pinfield, c. Livett, b. Parker . . . . .	0
H. Paul, b. Parker . . . . .	1
R. Whitworth, b. Parker . . . . .	16
A. Ray, not out . . . . .	0
Extras: Byes, 15; leg-byes, 1 . . . . .	16
Total . . . . .	128

BOWLING ANALYSIS.

The Architectural Association.

	Overs	Mdns.	Wkts.	Runs	Avg.
Hubbard . . . . .	14	4	4	33	8.2
Pinfield . . . . .	14	0	2	54	27.0
Kiddy . . . . .	5	0	0	15	
Ray . . . . .	5	0	0	28	
Dyche-Teague . . . . .	5	0	1	35	35.0
Beard . . . . .	5.4	0	2	10	5.0

The Society of Architects.

	Overs	Mdns.	Wkts.	Runs	Avg.
Young . . . . .	16	2	3	31	10.3
Caulfield . . . . .	2	0	0	17	
Parker . . . . .	12.1	1	6	58	9.4
Donaldson . . . . .	4	2	0	7	

THE Institution of Heating and Ventilating Engineers (Incorporated) is holding its summer meeting in Sheffield this week. About ninety delegates arrived on Monday evening and were welcomed by the president, Mr. F. Biggin (of the Brightside Foundry and Engineering Co.).

## Building Industries' Consultative Board and the Cost of Building.

At the request of the Council of the Royal Institute of British Architects the Board has given special attention to the high cost of building and the future prospects of the Building Industry. In the considered opinion of the Board, after examination of the evidence submitted to it, the situation may be summarised as follows:—

1. The cost of building in this country has now, probably, reached its maximum. Employers and operatives have already agreed upon reductions in the rates of wages; materials are now more readily obtainable than at any time since the War, and the prices thereof are, in many cases, appreciably reduced.

2. The outlook of the Industry for the future is, on the whole, hopeful. The general demoralisation due to War conditions is gradually passing away, and the Board is glad to record instances of support given by the Trade Unions to obtaining better output.

3. Extensive schemes for building are reported by architects to be under consideration. The lower prices should bring such schemes forward for execution, and thereby increase employment in the building and collateral trades.

4. The Board has already expressed its conviction that freedom from the interference of Government Departments is essential to the prosperity of the Building Industry. In its opinion the progress of National Housing has been greatly hindered, the cost increased, and the efficiency and comfort of the houses impaired by the useless and harassing intervention of State officials.

The Board welcomes the fact that the Government have announced their intention of removing the embargo on "luxury" building.

5. The Board views with apprehension the creation and growth of any "rings" and "combines" by manufacturers whose activities have the tendency to keep up prices and limit production. Any combinations which eliminate trade competition are a danger to industry unless the consumer is allowed to benefit by the reductions they are able to effect in the cost of administration and production.

6. Enterprize in building, as in other trades, is adversely affected by shortened credit due to the financial position of the country. The Board earnestly invites the Government to reduce public expenditure, and to repress the ambition of officials to increase the scope and power of their respective departments, with their consequent cost to the nation.

The Board is made up as follows:—

**ARCHITECTS.**—*Appointed by the Royal Institute of British Architects.*—John W. Simpson, President R.I.B.A. (Chairman); Ernest Newton, C.B.E., R.A., F.R.I.B.A.; Delissa Joseph, F.R.I.B.A.; Major Harry Barnes, M.P., F.R.I.B.A.

*Appointed by the Society of Architects.*—E. J. Sadgrove, F.R.I.B.A.

**SURVEYORS.**—*Appointed by the Surveyors' Institution.*—F. H. A. Hardcastle, F.S.I., A.R.I.B.A.; R. B. Maññ, F.S.I.; Dendy Watney, F.S.I.; Walter Lawrance, F.S.I.; Alan Paull, F.S.I.

**BUILDING TRADES' EMPLOYERS.**—*Appointed by the Institute of Builders.*—E. J. Hill; R. B. Chessum.

*Appointed by the National Federation of Building Trades' Employers.*—F. L. Dove, D.L., L.C.C.; A. H. Adamson; J. B. Johnson.

**BUILDING TRADES' OPERATIVES.**—*Appointed by the National Federation of Building Trades' Operatives.*—J. P. Lloyd, London District Council, N.F.B.T.O. (Vice-Chairman); D. Haggerty, General Secretary of the National Builders' Labourers' and Constructional Workers' Society; S. Stennett, London District Secretary of the Amalgamated Society of Woodworkers; T. H. Goodey, London District Secretary of the Amalgamated Union of Building Trade Workers; J. Murrey, Secretary London District Council, N.F.B.T.O.

## Correspondence.

### "Thatch."

To the Editor of THE ARCHITECT.

SIR,—My congratulations on the artistically illustrated articles by Mr. Charles G. Harper which are now appearing in your journal. I sincerely hope they will be published in book form.

I would like to add that in the open ground floor of the Town Hall at Thaxted there are two fire-hooks for removing the thatch from burning houses. One of them is so heavy that it is difficult to raise it unaided. In spite of the use of these fire-hooks, I am told that a street of most beautiful old thatched houses was burnt down in the reign of Queen Victoria. Nevertheless, Thaxted is one of the most charming old-world villages, with one of the most beautiful churches, in north-west Essex.—Yours, &c.,

J. H. KERNER-GREENWOOD.

Vyse Court,  
Bishop's Stortford,  
June 16, 1921.

## Unification and Registration Committee.

To the Editor of THE ARCHITECT.

SIR,—A letter appears in the Professional Press signed by Mr. A. W. S. Cross and others who appear to be in doubt as to the intentions of the Unification Committee with regard to Registration. It appears to me that the best way of putting their minds at rest is to ask them to read the published report again. It is clearly set out in that report that one of the objects of the scheme, whether under heading A or B, is Statutory Registration. Again, in Scheme A (II.) it is proposed that the R.I.B.A. shall present to Parliament a Registration Bill and shall prosecute the Bill with vigour until it becomes an Act of Parliament. Similar words appear in Scheme B.

Then in the Summary of the Report, paragraph 7, it is pointed out that the scheme provides for Registration by Act of Parliament, and in Section 3 it is suggested that the twelve months' notice of intention to bring in a Bill should not be wasted but that the details of the Bill should be settled during that time.

The whole of paragraph 8 is devoted to the Registration Bill and it gives particulars about the Dental Bill.

In face of these facts it is difficult to see why the signatories should say "up to the present the Committee make no recommendation for dealing with the second subject referred to them," i.e. Registration.

Neither is it correct to say that the Committee resolves "that all architects should be allowed to become members of the R.I.B.A.": it is particularly stated that the invitation should go to all architects who are *qualified*, and further that these architects should enter the class for which they are qualified. Surely nothing can be clearer.—Yours, &c.,

ARTHUR KEEN,  
Hon. Secretary, R.I.B.A.

9 Conduit Street, Regent Street,  
London, W. 1.  
June 21, 1921.

## "The Architect" Fifty Years Ago.

JUNE 24, 1871.

*Extension of the New Charterhouse Schools, near Godalming.*—In our issue of April 1 we gave an account of these works in some detail. At a very influentially attended meeting of the authorities upon the spot it has recently been determined to complete the chapel at once for the accommodation of the additional 200 persons, as before alluded to; to erect two additional houses for the boys, to finish the tower, and to build a sanatorium and lodges; also to complete at once the chapel fittings. For a detailed description of the works—which of course correspond with those now in hand—we may refer our readers to our previous notice.

THE Liverpool Architectural Society, which was founded in 1848, held its annual meeting on the 20th inst., when, in succession to Mr. T. Taliesen Rees, F.R.I.B.A., F.S.I., who has occupied the presidential chair for the past two years, Major Gilbert W. Fraser, F.R.I.B.A., was unanimously selected as the new President. A presentation from the members was made to Mr. E. Percy Hinde, F.R.I.B.A., who has been actively associated with the work of the Society, in various capacities, for over twenty years, and is at the present time on the Court of Governors of the University of Liverpool.



## Dispute about Architect's Fees.

SIR ARTHUR CHANNELL, in the King's Bench Division, on June 13, heard an action brought by Mr. Robert Sharp, architect, Griffiths Road, Wimbledon, and of Victoria Street, Westminster, against Ekins, Son & Percival, Ltd., Sheep Street, Wellingborough, for £3,706 16s. 9d. for architect's and surveyor's fees.

Mr. B. Cohen, K.C., in opening the case for the plaintiff, said the defence was an extraordinary one. It was that defendants did not agree with or engage or employ the plaintiff or authorise any other person to do so. There was no plea that the charges were excessive for work done. He took it the only issue was whether or not the contract was made by anyone who had the authority of the defendants to make it. He would prove that the contract was with two managing directors of the company.

Plaintiff was an architect, and the defendants were a company of boot manufacturers at Wellingborough. The company was incorporated in June 1919. Messrs. Harvey Percival and Herbert Hill, boot manufacturers, were the managing directors. The contract was made verbally.

Plaintiff was introduced to Mr. Hill by a Mr. Evans. Mr. Hill said to plaintiff, "We shall want your services to prepare plans and estimates. We shall want a modern factory to turn out 10,000 pairs of boots weekly, and a housing scheme for the workpeople." Later he saw Mr. Hill and Mr. Percival, and Mr. Percival instructed plaintiff to prepare plans. Nothing was said about fees, and plaintiff assumed that he would be paid at the usual rates. He set to work, but the factory had not been built and the company had abandoned the scheme. But the whole of the work had been done by plaintiff.

Plaintiff said he was a Licentiate of the Royal Institute of British Architects. He had been in a partnership with a Mr. Stevens, but that partnership was dissolved in June 1919. He got into touch with defendants through Mr. Stevens, who was known to Mr. Evans, who had a room in Mr. Hill's office. Plaintiff first saw Mr. Hill on June 23, 1919, at Mr. Hill's office. Mr. Hill said he would require plaintiff's services as architect and surveyor, and it was arranged that plaintiff should go to Wellingborough and see the site which had been bought, and also go to Leicester and interview an expert.

At the conclusion of his visit to Leicester, Mr. Percival said to him: "Now you have got all the particulars you want, get back and push on with the plans as fast as you can, because we don't want to waste any time." Plans were formally approved in September, and he was instructed to accept the tender of Messrs. Dorman, Long & Co. for the steel work. The site was thirteen acres in extent, and the factory would have covered about an acre, the rest of the land being for housing the workers.

He wrote to the defendant company on May 8, 1920, asking for £1,000 on account, and about three weeks later Mr. Hill told him he would send on a cheque in a few days. But he never got a cheque or any money, and he had never been told why he had not been paid.

Plaintiff, in cross-examination by Mr. Disturnal, K.C., said he did not know that there was a scheme to form a large company called the Graded Shoe Corporation, and that what was wanted was information to put in a prospectus.

Were you not told that you were wanted to prepare a report of probable cost of a factory, and that this report was to be published with a prospectus?—No.

Plaintiff went on to say, in answer to Mr. Disturnal, that Mr. Hill did not tell him he proposed to acquire the interest of the Pedograde Company and combine with it that of Ekins, Son and Percival, Ltd., and that of Thomas Lilley & Co. The proposed factory was an expensive scheme, and one tender received, the highest one, was £67,000.

Re-examined, Mr. Sharp said he was never given to understand that he was to look to a larger company for payment.

Mr. Disturnal, K.C., in opening defendants' case, said that up to June 5, 1919, there was a business carried on by Mr. Percival and Mr. Ekins as Ekins, Son & Percival,

Ltd. Mr. Percival was a practical boot-maker, but he knew nothing about company promoting.

In the previous March he met a Mr. Hill, who carried on business in London. There was an interview as to the formation of a new company, and the scheme provided for making boots on a large scale. Mr. Hill had the idea to secure the businesses of the Pedograde Company, of Ekins, Son, and Percival, Limited, and Thomas Lilley & Company. The idea was to go to the public with the new company called the Graded Shoe Co. The factory was to be erected on the most modern lines, and it was intended to lease the factory to the defendant company for a term of years. Mr. Hill discussed the scheme with Mr. Sharp, and Mr. Sharp was given to understand that the scheme was in the nature of a speculation.

It was perfectly true that Mr. Percival wrote to Mr. Sharp on the subject, but Mr. Percival never intended that Mr. Sharp should look to his company for payment. He looked upon Mr. Sharp as a co-speculator.

Mr. Herbert Hill, a director of shoe companies, Finsbury House, Blomfield Street, London, said that it was explained to Mr. Sharp that the success of the scheme would depend on its flotation, and that if the money were obtained it would be a good thing for him.

Mr. Sharp agreed to do the work on the terms that his payment would depend upon their getting the money for the new company, to be called the Graded Shoe Corporation. The scheme was provisionally underwritten, but when the excess profits duty was put up the scheme fell through.

Mr. Hill in further evidence, said Mr. Sharp asked him in May for some money and he promised to do his best for him, knowing that Mr. Sharp had done a good deal of work. He thought of providing Mr. Sharp with funds out of his own resources. He did not know then that Mr. Sharp had applied to Ekins, Son and Percival, Limited.

Mr. Percival, director of defendant firm, denied that plaintiff was employed as architect by Ekins, Son and Percival. He was an architect on a speculative basis.

Sir A. Channell: Was it not the fact that you were taking him as your architect, but you believed Mr. Hill had made a bargain with him on a speculative basis?—Yes.

Mr. Arnold Francis Dicken, chairman of Ekins, Son and Percival, said the question of building a factory or of engaging Mr. Sharp as architect was never considered by the Board of that company.

Mr. Francis Coleman Higgins, F.R.I.B.A., of the firm of Higgins and Thompson, architects, Finsbury Square, said that he had examined the plans and specifications prepared by Mr. Sharp, and his opinion was that they were not sufficient for the purpose of enabling a business estimate to be prepared.

His Lordship in giving judgment, said that Mr. Sharp was employed to prepare the plans for the factory and to act as an architect for the company, he could not entertain any doubt. The question arose as to the terms upon which Mr. Sharp was employed by Mr. Hill, and whether Mr. Hill's acts bound the defendant company. He considered it a fact that Mr. Hill was engaging a man for the defendant company. He did not think Mr. Hill made it clear to Mr. Sharp, at any rate at the earlier interview, that he was doing the work on a speculative basis. The other members of the Board no doubt thought Mr. Hill was protecting them by making a bargain with plaintiff on a speculative basis. But that did not protect them because it did not affect Mr. Hill's authority to act as a managing director. The defendant company were promoting a new company and as promoters had incurred that liability to plaintiff.

His Lordship in giving judgment for plaintiff for £1,062 12s. 2d. and costs, disallowed the claim for the fees for the quantity surveyor. Defendants were granted stay of execution pending appeal.

THE Pelsall Sanatorium for Consumptives is to be enlarged at a cost of £7,800 if the Walsall authorities can obtain the sanction of the Ministry of Health.



## The Economic Unit Principle Applied to Large Cities.

By JOHN LATHROP.

### The Philosophy of the Small Family-owned Home.

EVERY argument in favour of limitation of heights of business structures, in congested city centres, applies with equal force to the construction of individual and smaller houses for dwellings throughout any city, arguments in respect of protection of the light and air rights of the human being, and of prevention of congestion of street traffic.

There are, also, vital social considerations involved in this matter, and, when all factors are taken into account, the desirability of small individual homes is established.

An alarming tendency nowadays is the decreasing percentage of persons who own their homes. Even in frugal France this is true; it is true in Great Britain, true in Germany, in all countries indeed, and the United States shows these disturbing figures:—

*The United States—Home Renters.*—1890, 52.2 per cent.; 1900, 53.9 per cent.; 1910, 54.2 per cent.; 1920, 60 per cent.

Doubtless, one reason for this decrease there, as elsewhere, is that families feel insecure because of rapidly changing conditions; and another reason is the mounting costs of all construction. The average man, frightened at the immobile conditions, wishes to be free to move at will.

Certainly, home owning will, inversely, tend to cultivate a more stable frame of mind, and to correct this deplorable disposition towards change. And we must concede that evasion of the ties of home owning and home upkeeping engenders a degree of social irresponsibility which is not socially healthy. It reflects on all social processes, and renders more difficult the solution of social problems.

An outstanding fact in Central and North Central Europe now is the one stable element of population in the land-owning peasantry. They have their lives' roots deep in the soil they own; they cling to it tenaciously; they discard the fallacies of the Lenins and Trotskys as subversive of their home-owning principles; and they are to-day the strongest bulwark there against the onrush of unsound social schemers.

This is, of course, not to inveigh against sane social forward movements, but is written with full appreciation of the urgent necessity of reaping the harvest of all the past years of earnest thought and planning for the improvement of the masses. It is, indeed, precisely in that appreciation that these views are expressed—appreciation that forward movements must be really forward and not the opposite; that wrong tendencies must be stopped; that progress must be genuine, fundamental, not superficial, and in reality progress.

The urban problem is serious. The vast city aggregations of population have created situations, material, economic and spiritual, in which our modern civilisation finds little of comfort and social health. A principle is universal and fundamental and of universal application—in rural or urban social formation. What the small-farm home owning has done towards safeguarding social security in Central and North Central Europe, the small-home owning will do for the large city. Amid the baffling cross-currents which to-day swirl and eddy and confuse, must we not discover in which direction lie solid ground and rock foundations? And who that thinks deeply will deny that the forces generated in the homes determine the trend of human society?

What of the family submerged in a mass in a large flat building? One of a group of masses, non-individual, undifferentiated, carried far beyond the rational limits of homogeneity so as to lose much of the values of individuality? A family, not invested with pride of responsibility and opportunity as in the individual home,

but merged into an inchoate mass, plastic to the moulding of every superficial social plotter who chances at the moment to be the vogue?

Are not such families much as are the cave-dwellers of Arizona—living in so-called homes which are merely as the cave-dwellers' slots in the side of a rock hill, all alike, and none with initiative or creative capacity?

One value in the small family-owned house is the opportunity for self-expression by the family. Any architect prefers a client who, intelligently, knows definitely what he wants. The small family-owned home induces the average family to crystallise their aspirations and ambitions and desires as to their prospective home, and to cultivate both family and individual responsibility for the out-working of those aspirations. The very planning of a home, in so far as the members of the family contribute their ideas and wishes towards the plan, to be wrought out in scientific and artistic forms by the architect, will develop this sense of responsibility, and establish a definite social responsibility by every member of that family.

Another important phase is the relationship of the smaller family-owned dwelling-house towards future inevitable re-planning of the area. Far as we may seek to peer into the future, we cannot—and never have been able to—build residential sections so as to obviate later comprehensive alterations of the residential conditions in a given area. Where immense flat-buildings have been erected, there are financial obstacles in the way, when comes the day—as it usually does come—for readjustments. The character of the area changes, from residential to business, or even to industrial, in spite of the foresight and planning exercised in laying out the original area. It is expensive to "write off" massive flat-buildings. Hence, business occupies structures unsuitable to business uses—made-over buildings, inconvenient and non-economic for trade; makeshifts, at the best.

But the principal argument in favour of the small, family-owned home is, and must always be, the social consideration—the creation of a community in which there shall not be an utter wiping out of individuality. The out-and-out Socialist inveighs against home-owning by the worker. He argues that, if the working-man be induced to buy a plot of ground, and erect thereon a dwelling-house, he is thereafter, a slave to his employer; cannot easily move to another location, and therefore must endure industrial conditions which are inimical to his interests.

In answer, and to fortify the contention for the small family-owned home, let us imagine capital adopting such a policy of irresponsibility. Where then would be the factories and works which give employment to the working-men? No. The capitalist is expected to sink his money in works which he cannot move, to tie himself to the location, and (adopting the idiom of the Socialist) accept for himself a slavery to place and condition. Should not the others of the community accept an equal responsibility, and give to society that stability which, and which only, will permit the dependable operation of industrial enterprises? Manifestly, yes. Emphatically, yes. Undebatably, yes.

The wife of a great English leader of labour said to me recently: "Better a little house and a garden, than a big house and no flowers or vegetables or flag-walks." Certainly, she expressed the correct philosophy of housing, considered from the general social needs, and the best interests of the family and the members thereof. So, again—in respect of light and air and prevention of street traffic congestion, and of social good, we cannot refuse our subscription to the small dwelling-house programme. It makes for a community healthier in every respect.

WE are desired to announce that members of all the allied societies and of the Architectural Association are cordially invited to take part in the R.I.B.A. Annual Conference at Liverpool on June 24 and 25. The Lord Mayor of Liverpool will hold a Reception of Members in the Town Hall, at 10.30 A.M. on Friday, June 24.



## The late Maurice Pocock.

MAURICE POCKOCK, architect and past-master of Carpenters' Hall, died at Edenbridge, in Kent, on Saturday, June 11, beloved and honoured by all who knew him. Perhaps his chief claim to distinction as an artist in building was that he did not figure in the public eye as one eminent in his profession. He was one of those who would not bow in any House of Rimmon or make the compromises which are the price of worldly success in the modern world. At whatever cost to himself he followed unswervingly his ideal, and if architectural ability is to be measured by spiritual values, rather than by successful business enterprise, Maurice Pocock stands in the first rank. I know of no other architect who has penetrated so deeply into the heart of the mystery of the builder's art, nor is there any other who has so devoted his life and sacrificed his worldly prospects to the single aim of trying to produce buildings which should possess the noble qualities of the buildings of the past in England. His last piece of work—the reconstruction of an old Kentish house—is perhaps the best example of his work. It shows what can be expressed by the use of the ordinary materials and processes of building. In order to achieve what he desired he took on himself the form of a workman, and day by day supervised and helped in the laying of every brick and stone, in the shaping of every piece of timber. Inspired by his enthusiasm the men he employed began to understand and realise what building really might become in the hands of an artist. If only our modern housing schemes could be realised like that England might become beautiful again. There are those who profess to see in work of this kind nothing but affectation, and since such modern work may sometimes be mistaken for old it is dismissed as a fake. In the case of Maurice Pocock, all those who knew his deep sincerity and conviction would be obliged to recognise that his work was above all things sincere. He worked in the old way because he knew it was the only right way, not because he wanted his work to look old. And in his work he unconsciously expressed his whole life and character. Both his life and his work were unaffected and simple. Nor was his virtue of the kind which arises from necessity. It was a deliberate choice. He had many and great opportunities for what the world considers a successful career. But he chose to follow his star.

M. H. BAILLIE SCOTT.

## Progress in Building Working-Class Houses in London.

INTERESTING information as to the commitments of the London County Council in erecting working-class dwellings in London and the progress already made was given at this week's meeting of the Council.

In a question addressed to the Chairman of the Housing Committee, Mr. Marks asked for information on the following points:—

- (1) The number of working-class houses the Council is at present committed to erect;
- (2) The number in course of erection, i.e., in which the foundations have been commenced, but are unfinished;
- (3) The number finished, but unoccupied;
- (4) The number finished and occupied;
- (5) The highest cost of a house occupied and the rent at present received for it;
- (6) The lowest cost of a house occupied and the rent received for it.

Colonel Freemantle (Chairman of the Committee) gave detailed replies as follows:—

(1) Estates in course of development since the War, including the first section of Becontree, would comprise about 7,756 houses for which contracts had been let. The addition of 144 tenements in block dwellings made a total of 7,900.

(2) The number of houses commenced up to June 17, but not completed was 3,265. With the addition of fifty-eight tenements, the total was 3,323.

(3) Only three finished houses were unoccupied. These had just been completed and would be occupied within a few days.

(4) 448 houses and tenements had been finished and occupied.

(5) As to the highest cost of an occupied house and the rent received, he was unable to give the exact detail of a particular house, but the average cost of five-roomed houses occupied on the Roehampton Estate was estimated at £1,586, including roads, sewers, and fees, but excluding land. Including land, the cost was £1,658. The highest net rent was 19s. a week.

(6) Regarding the lowest cost of a house, he was again unable to give the exact cost of a particular house. The cheapest post-war occupied house was a three-roomed house on the Old Oak Estate, built at an estimated cost of approximately £750, including roads, sewers, and fees, but excluding land. The cost including land was £768, the road and sewer works having been carried out before the War. The lowest net rent was 12s. 6d. a week. Lower rents were charged for flats where erected.

## The Royal Sanitary Institute.

THE thirty-second Congress of the Royal Sanitary Institute was opened on Monday, June 20, at Folkestone, when there was a reception in the Woodward Hall by the Right Worshipful the Mayor. The Earl of Radnor later delivered the inaugural address at the Town Hall. A full programme of events was arranged, concluding with a whole-day excursion to Boulogne on Saturday, June 25.

The Health Exhibition in connection with the Congress was opened in the Drill Hall on Monday afternoon, and will close on June 29. The list of awards includes, among others, the following exhibitors:—

### SILVER MEDALS.

Doulton & Co., Ltd.—“Eastern” squatting closet with footplates and trap in one piece.

Firth-Brearley Stainless Syndicate, Ltd.—Stainless steel.

Jackson Elphick & Co., Ltd.—Combined bath and basin.

George Jennings, Ltd.—Century syphonic closet.

London Warming Co., Ltd.—“Kooksjoie” anthracite range and “Wifesjoie” one-ring gas-cooker.

Shanks & Co., Ltd.—“Ailsa” bath.

### BRONZE MEDALS.

Berkefeld Filter Co.—Berkefeld filter.

George Blay.—Circular steel tent.

Doulton & Co., Ltd.—Drinking-fountain with self-closing valve and hooded jet; screw-down taps for lavatories and baths, in black oxydised finish; Doulton bidet; Doulton germ-proof filter; and “Duplex” pillar brass swivel valve.

Ferodo, Ltd.—Ferodo stair tread.

Sidney Flavel & Co.—Flavel mantel register for coal and gas; Flavel parlour oven grate; and Flavel kitchener.

G. W. Harrison & Co.—“Harriap” syphon flushing cistern.

George Jennings, Ltd.—Anti-contagion closet.

London Warming Co., Ltd.—French porcelain-enamelled baths, with T.J.U. fitting.

H. Pontifex & Sons.—Pontifex bidet; “Easy Cleaning” bath; “Independent” white earthenware pedestal lavatory; and “Masher Float.”

Quicksey Cabinet Manufacturing Co.—Quicksey kitchen cabinet.

The Rawlplug Co., Ltd.—Rawlplugs.

Shanks & Co., Ltd.—Purita drinking-fountain.

Woodhead Bros.—“Skapa Flo” syphon flushing cistern.

THE Loughton (Essex) Urban District Council have accepted a tender for the erection of thirty-one houses at £175 to £200 under the price paid less than a year ago for similar buildings.



## No. 20 St. James's Square.

THE news that Messrs. Hampton's have taken over one of the most admirable specimens of Adam architecture and decoration in existence as their new estate offices will be welcomed by all lovers of the fine arts. Secure now against destruction or needless alteration, this famous house should go down to posterity unspoilt, and the privilege of seeing it will add something to the scanty pleasures of house-hunting in future.

Two cisterns in the basement record the exact time taken by the architect in erecting the house. Their inscriptions read:—

SR. W: W<sup>MS</sup>. WYNN'S  
HOUSE BEGVN  
AVG: 1771  
FINISHED  
AVG: 1774

Three years, that is, saw the completion of a difficult task, the placing of an important mansion on a site of 46 feet wide, the erection of a covered courtyard behind, of stately stables, and of a classic arcaded screen of singular grace along one side to shut off the outbuildings of the neighbouring house of the Duke of Leeds. Sir Watkin Williams Wynn, for whom all this was done, was a Welsh baronet of great wealth, an enlightened patron of contemporary artists, and a man of fine taste for whom Adam, then at the height of his reputation, must have had great pleasure in working. Mr. Swarbrick's recent work has shown us much of the architectural interest of the place, but a more detailed description, due to the courtesy of Messrs. Hampton in allowing a thorough inspection of the mansion, may be acceptable to many readers.

The house is approached by a gracefully curved flight of steps, and the front door, with its sunk panels, twin knockers, and exquisitely decorated entrance, suggesting the fine mouldings of the Erechtheum, is quite admirable, as is the double fanlight above the door. It opens into the Porter's Hall, which is adorned with circular medallions containing antique trophies of arms and a fine plain fireplace, the old porter's chair reposes still in mouldy state in the basement. Beyond is the Inner Hall, from which ascends the staircase with its delicate balustrade; a semi-circular alcove opposite, repeated on the next floor, relieving the plainness, and adding to the sense of space. From this hall opens the Eating Room overlooking St. James's Square, with its superb fireplace and its grey and salmon ceiling, ornamented with circular and octagonal mouldings; round the dado runs a frieze of tiny rams' heads delicately wrought, and to the east is a fine classic screen of four Corinthian columns, beyond which a semi-circular door opens into the Music Room, both ends of which are semi-circular, the walls being treated in panels with classic mouldings of wreaths and cupids and musical instruments, while the mantelpiece shows a fine relief of Apollo and the Muses. The great organ built for the room is gone, but the ceiling with its five circular panels attributed to Angelica Kauffmann remains, while on the walls on the dining-room side are similar oblong panels filled with classic subjects. The rounded bay-window opens on to the courtyard, which is effectively finished on one side by the screen already referred to, and at the end by the fine façade of the stables, which contain seven stalls and six loose boxes, but are too dark and too little ventilated for modern notions. Beyond the hall is a small library with two fine book cupboards, and beyond it again Sir Watkin's dressing-room. The fittings of this room—the cupboard doors designed to look like panelling, but opening with a touch to reveal toilet tables, nests of drawers and wardrobes of the most exquisite workmanship, are a revelation of the beauty possible in a cabinet de toilette; beyond it again is a bathroom, once a powdering closet.

Returning to the hall and ascending the main staircase with its warm buff panels and inlet friezes of griffins upon a blue ground, and noting the excellent effect of the inset copies of the Transfiguration and the fine Salvator

landscapes on either side, we come to the drawing-room now stripped of its damask, but with its original ceiling of pinkish buff picked out with mouldings on a background of green and blue and pink; we notice also a splendid landscape set in a panel over the door into the Back Drawing-room, a noble room above the Music Room, but with a barrel roof decorated in the most elaborate and highly coloured style. Moulded panels, paintings, some in grisaille, some in full colour, relieved by black urns wreathed with gold; doors painted with the classic figures of Houri and Cupids still to be seen at Naples, make up a riot of colour and richness hardly to be matched in England. From this room opens a pretty little sitting-room above the Library, with a mantelpiece adorned with swags of leaves inlaid in green marble on a white ground and connecting the central panel with the sides, all three panels being adorned with classic figures in encaustic painting on marble. Beyond, again, is Lady Wynn's dressing-room, whose ceiling is a dome on segmental arches, and whose fittings are as exquisite as those of her husband's dressing-room below, while the Mantelpiece represents white poppy heads on a slab of pale green marble. Beyond is a powdering closet with fitted drawers and cases, the handles of its four doors being exquisite examples of fine and delicate work.

The two bedroom floors are far less interesting, except for a charming balustrade on the second floor; there is very little in the way of mouldings or ornament, and on the third floor, which was the servants' quarters, practically nothing. These top rooms, by the way, are scarcely six feet nine inches high, and in the two really large ones it is clear that four servants must have slept, since each is furnished with four chests of drawers set against the wall. The story is not more satisfactory downstairs. The basement, seen even on a bright July day, is incredibly dark, and two rooms at least have no window or skylight whatever. The large kitchen itself is lighted only by skylights, and by one window some eight feet from the ground, and before the advent of electric light it is difficult to conceive how household work was carried on at all, or, how even the most rudimentary cleanliness could be attained.

This brief account can give no idea of the beauty of detail to be found in the house. The grates, the mirrors, the very handles of the shutters are eloquent of Adam's care in such matters. But the basement is worse by a long way than in any other house of the period which we have ever seen, and one cannot but feel that something of the thought lavished on the minutiae of the reception rooms might have been spared to make the conditions downstairs more tolerable.

We must not omit in conclusion a famous story, twice told by J. T. Smith, who had it from Mrs. Garrick herself. Over the mantelpiece in the Front Drawing-room there used to hang, in a sumptuous frame, Dance's famous portrait of Garrick as Richard III. When Mrs. Garrick, examining the portraits of her husband in the Print Room of the British Museum in August 1821, shortly before her death, came to the print of this one, she observed, "Ay, Sir, Mr. Dance used me scurvily as to this picture; it was to have been mine at one hundred guineas, and a place was cleared for it, when to my great astonishment he informed Mr. Garrick at our dinner-table, where he had been always welcome, that he could sell it for fifty or a hundred guineas more to Sir Watkin Williams Wynn. 'Well, sir,' observed Mr. Garrick, 'and you mean to take it?' 'Yes,' replied Mr. Dance, for he was not then Sir Nathaniel, 'I think I shall.' 'Think no more of the picture,' whispered Mr. Garrick to me; 'in a short time you shall see a better one there.' . . . And the first morning after he had a looking-glass, to the value of one hundred and twenty-five guineas, put up in the place which had been allotted for Dance's picture. He requested me to go in and look at it, when he, with his usual playfulness, peeped over my shoulder. Sir Watkin, who never knew a word of Dance's ingratitude to Mr. Garrick—who had introduced him to all his friends—purchased the picture, and bestowed a most splendid frame on it at an enormous expense."



# PUDLO

Trade Mark.

BRAND

Regd.

CEMENT WATERPROOFER

Wanlockhead Church, Dumfries.

Drawing by R. W. Stoddart, A.R.I.B.A.

## WEATHERBEATEN BUILDINGS.

The Village of Wanlockhead, Dumfries, is over 1,300 feet above sea level. It is said to be the highest in Scotland. The church, which is situated in the most exposed part of the district, was falling into decay owing to dampness and the "scour" of the weather.

The inclusion of 'PUDLO' Brand Cement Waterproofing Powder in the harling (roughcast) has resulted in perfectly dry walls and counteracted the danger to the stability of the building. Buildings in the most wind-swept situations and with the most saturated walls are made bone dry with cement renderings waterproofed by the addition of this remarkable powder.

Ask for a Specification—Free.

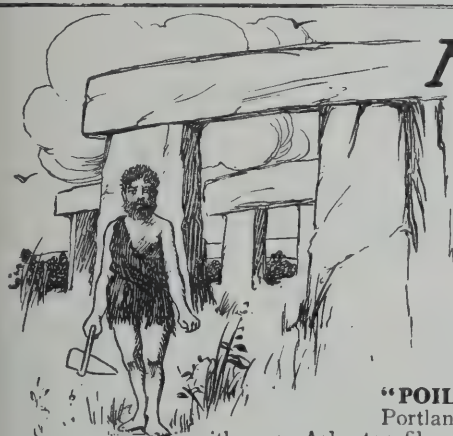
Used also for Reservoirs, Flooded Cellars, Leaking Tanks, Garage Pits, Concrete Buildings, etc.

Tested by Faija, Kirkaldy, Cork University, the Japanese, Italian, Dutch and Spanish Governments, and the most eminent experts.

Used by the Admiralty, the War Office, the India Office, the Crown Agents, the Office of Works, the General Post Office, etc.

BRITISH! and apart from Patriotism, THE BEST!

Sole Proprietors and Manufacturers, Kerner-Greenwood & Co. Ltd., Ann's Fort, King's Lynn.  
J. H. Kerner-Greenwood, Managing Director.



*First—the Stone Age, then the Slate  
and Plaster Age,—now*

# 'POILITE'

The Modern Builder's Material.

"POILITE" is made of best London Portland Cement, strengthened tenfold with pure Asbestos fibre. "POILITE" is fire, damp, and rot-resisting. It is easy to erect, can be nailed or sawn, and improves with age. No upkeep cost.

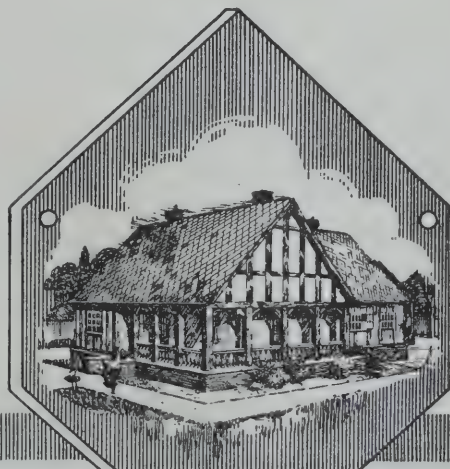
### FOR ROOFS—

"POILITE" (Bell's Asbestos Cement) Tiles. Stronger than slate—half the weight. Great economy in substructure. Ten per cent. cheaper. Size  $15\frac{3}{4} \times 15\frac{3}{4}$  inches. Chamfered and punched with nail and rivet holes.

### FOR WALLS AND CEILINGS—

"POILITE" (Bell's Asbestos Cement) Flat Building Sheets. Smooth, hard, fireproof sheets in place of the old time out-of-date plaster. For inside or outside walls. Three standard sizes: 8 ft.  $\times$  4 ft.; 6 ft.  $\times$  4 ft.; and 4 ft.  $\times$  4 ft.;  $\frac{3}{8}$  in. thick and upwards.

"HURCAN" BUILDING SLABS—For cheap and efficient housing. No plastering. Speedy erection. Cost of labour and mortar halved. Appearance as dressed stone.



## Bell's United Asbestos Co., Ltd.

Southwark Street, London.S.E.1.



In his later "Book for a Rainy Day," which Smith did not live to see through the press, he tells the story in less detail, giving 200 guineas as the price Garrick was to have given, and 300 as that which Sir Watkin offered; if only for the more reasonable price of the mirror, the former version is in everyway to be preferred.

This brief account of one of the great town houses of the eighteenth century, given with more historical and antiquarian detail than in Mr. Swarbrick's well-known book on Robert Adam, will, it is hoped, be acceptable to all readers who care for the human side of architecture, and for the social history bound up with the historic houses of London, so many of which, under the changed conditions of modern life, have disappeared in recent years.

### Hindrances to Sanitary Reform.\*

HINDRANCES to sanitary reform arise from ignorance, apathy, indifference or neglect, thoughtlessness and selfishness, and all parties in the State are more or less guilty under one or other of these heads. Were it not so, we should not find hundreds of thousands of homes in the insanitary condition in which they are to-day, nor would we find so many districts in this country either entirely without reliable sources of water supply or at the best having inferior supplies only, nor would there be thickly populated centres entirely without systems of sewerage and sewage-disposal works; yet the absence of these requirements of modern civilisation produces an appalling condition of things in many cases even within a short distance of the greatest city in the world.

Ignorance and apathy can be got over by education, but neglect to carry out the requirements of the legislature could and should be dealt with according to the statute law.

Selfishness is quite a different matter, and it is very difficult to deal with. Exacting an abnormal profit, for instance, is sheer selfishness. Unwillingness to foster or support schemes for the improvement of the health of localities because of the increase in rates that would result from the carrying out of these works often arises from selfishness or indifference to the needs of others.

"We must not overburden the ratepayers," was ever the cry on the part of those who wished to block sanitary progress. In the eyes of these people almost every reasonable requirement of modern civilisation must be dispensed with in order to keep down the rates and taxes. Such persons can only be categorised with the disciples of "Peace at any price."

There are many directions in which we can economise before it would become needful to reduce necessary expenditure for the provision of proper systems of drainage, water supply, the erection of suitable dwellings for the people, and suchlike.

We have lately incurred a capital indebtedness of something like eight thousand million pounds in connection with a great war, and in addition to that we find the nation's manhood strength is very much decreased. Not only have we lost the flower of the race to the extent of somewhere in the neighbourhood of a million men killed, but many more are maimed or otherwise broken in health, and, speaking generally, the nation seems to have lost a great deal of its energy.

The limited amount of money available at the present time may, secondarily, be considered the greatest hindrance to sanitary reform.

Those who follow the profession of an engineer were no doubt taught that to obtain the most effective use of any force or power under our control it should be exerted along the lines of least resistance.

It would seem, therefore, that in order to overcome our present difficulties, we must use our power, in the form of available cash, in the most effective way, and in that way which will be the more certain to assist in

making up for the wastage of war and in overcoming the very abnormal conditions now prevailing.

Every legitimate endeavour must be made to keep up all our public works and departments, such as the Navy and Army, the post, telegraph, and telephone systems, railways and public health services, national and local, to the highest standard of efficiency, but we must have the utmost regard for economy. It would, however, be false economy to cut down legitimate expenditure for such works as are necessary to maintain the public health.

When a ship is in danger of foundering it becomes necessary to jettison a portion of the cargo; that which can be spared best, all things being equal, being thrown overboard first.

In what direction, then, can we look for practical economy?

It would appear that this is largely a personal matter.

It is contended by many that in matters of dress we are becoming too luxurious. This is said to be an evil characteristic of both sexes.

Then, again, there is a vast amount of time and money being spent on what is called "sport."

If we are to maintain our place among the strong progressive nations of the world we must learn to put to practical and economic use much of the time now devoted to sport and the work in connection therewith.

There is, too, the matter of the drink question. In round figures something like 450 millions sterling was the amount of our drink bill last year—more than sufficient to pay the interest at 5 per cent. per annum on the whole of the capital indebtedness incurred by this country in consequence of the war.

What is there to show on the credit side? Absolutely nothing as a net result.

We require money for sanitary reform in all parts of the country. We want not only many more new houses, but a very great improvement in connection with the houses that already exist.

The author, speaking from many years' practical experience, said he had no hesitation in saying there is to-day an appalling condition of things all over the country, in town and village.

America has seen how great is the waste occasioned by an indulgence in strong drink, and she has banned this curse. It will be impossible for this or any other alcohol-drinking country to compete with America when she has got fairly into her new stride as the result of the great economy in money, time, and energy that will be effected by the elimination of this canker from her national life.

On the one hand, we have great waste going on through spending money on useless things, or, at any rate, things that are not needful; and, on the other hand, there are agencies at work which tend to make such money as is available of little value compared with what it was in pre-war times.

One aspect of the question is the very high prices ruling in connection with materials, fittings, and appliances required in connection with house building and contingent works, such as sewerage, drainage, water-supply, and the construction of roads, streets, &c.

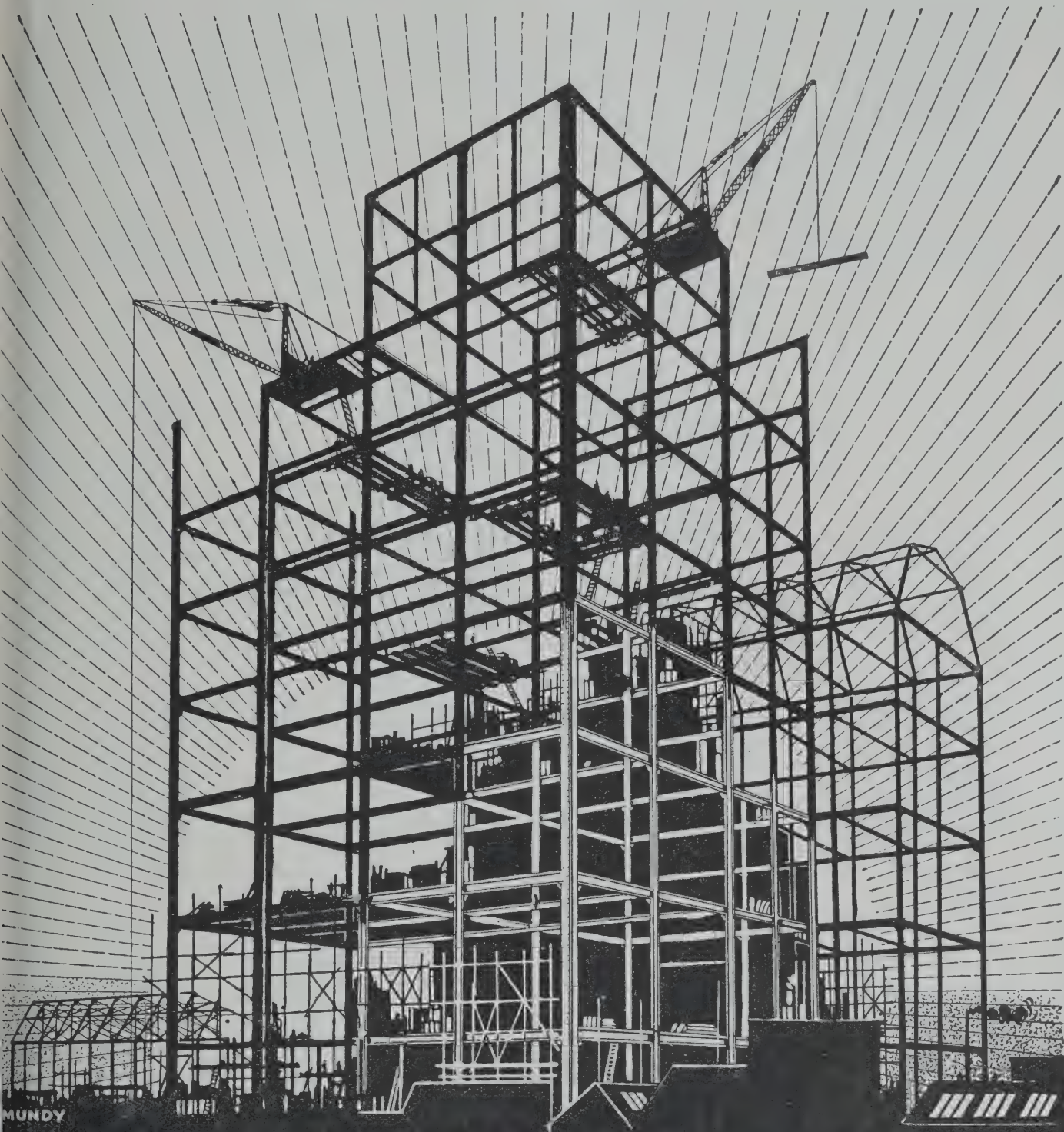
It will be remembered that a Profiteering Committee was appointed "to inquire into the cost of building materials and as to the existence of rings and combines in the trade."

This Committee has now issued its report, and Mr. A. G. Sheering, who appears to have been largely responsible for the appointment of the Committee, is strongly of opinion that effective Government action is necessary in order to destroy the rings and combines which, he maintains, undoubtedly exist in the building trade.

It appears that rings or trusts or combines, or whatever they may be called, were formed not only by manufacturers, but also by the builders' merchants. In the case of the Light Castings Association, which, it is said, has been practically the means of raising the cost of iron castings six or seven times as much as pre-war, the Profiteering Committee in its report stated: "By a pooling arrangement the National Light Castings Association

\* Abstract from a paper read at the Annual Meeting of the Institution of Sanitary Engineers by Major T. J. Moss-Flower, F.I.S.E., past president.





# REDPATH BROWN & CO. LTD.

## CONSTRUCTIONAL ENGINEERS

### WORKS AND STOCKYARDS

LONDON  
Riverside Works.  
East Greenwich SE.

MANCHESTER  
Trafford Park.  
BIRMINGHAM  
Office: 47, Temple Row.

EDINBURGH  
St Andrew Steel Works.  
NEWCASTLE-ON-TYNE  
Milburn House.

GLASGOW  
Pinkston.  
Office 19, Waterloo St

London City Office :- 3, LAURENCE POUNTNEY HILL E.C.4



penalises any member who increases his output and rewards any member who reduces his output relative to the cost"; and they further state: "We regard this arrangement as tending to restrict total output; to stereotype the lay-out of the industry and to retard the improvement of efficiency. We consider it to be contrary to the public interest."

Then there are the combinations in the cast-iron pipe and wrought-iron tube business, and also of the Midland Pipe Association, which embraces practically all the stoneware and earthenware pipe manufacturers in this country. The operations of the latter are really farcical. The Secretary of this Association sends out a circular every now and then stating what the prices of pipes are to be, and if one sends to a dozen or more firms, or even every firm in the membership of the Association, they will get practically the same price per yard for every size from 4-inch upwards, and for every kind of fitting, and it is a sheer waste of time to ask for competitive tenders, in fact there is really no competition, and in some cases it is understood the manufacturers practically decide among themselves who is to complete the order.

A comparatively short time before the war there was an increase of from 40 to 50 per cent. or more on the prices previously ruling for stoneware pipes, and between that increase and the present-day prices there have been rises almost beyond comprehension.

The author, in 1915, was quoted for certain concrete tubes, and the price asked for the same thing to-day is just over four times as much, and there appears to be no justification for such a large increase. One admits that the increased wages and cost of transport and raw material account for some of this, but it is believed that the prices now being asked are out of all proportion to what is reasonable. Again, there is a tendency all the way round for the manufacturers and merchants to contract out of their pre-war and ordinary trade obligations. They will take very little responsibility in some cases as regards quality, and certainly not as to time of delivery, nor will they hold prices firm.

Some time ago, when there was a tendency for prices to rise, the Midland Pipe Association issued a circular to the effect that notwithstanding any quotations that may have been given, the prices charged would be those ruling at the date the goods were despatched from the works.

It must be generally agreed that this is a most unreasonable method of conducting business, which creates want of stability and discourages the carrying out of work, and generally militates against progress being made in connection with those works upon which the general health of the public so much depends.

The building operatives and the workmen generally who are engaged in building operations or in making or supplying materials required for constructional sanitation are blamed for the high prices, and are said by some people to be the sole cause thereof. The high rates paid to these workmen are no doubt a contributory factor, but surely they are not the sole cause.

It is difficult to suggest a remedy, but it appears that as regards the combinations some drastic means will have to be evolved for meeting the difficult position created.

What the author would suggest is that large industrial concerns, especially those engaged either directly or indirectly with materials or appliances used in constructional work, should combine for supplying materials and appliances at a minimum figure, preserving to themselves of course a reasonable return.

There is a tendency to lower prices now, but in many cases there is practically no decrease. The representatives of various firms have been heard to say, "We can find markets for all we can make at the ruling prices; why should we reduce our charges?"

The general result of these high prices, apart from their preventing works being executed at all, is that such works as are carried out are not generally of the high standard asked for and obtained in pre-war days. Everything is cut down to the last penny. This is seen more particularly in the case of the houses being constructed under the new housing schemes. Practically every bit

of ornament or embellishment inside and outside the houses is cut out, the rooms are reduced to the very minimum, and substantiality and general excellence in construction are not attainable even at the extraordinarily high figures at which small houses are being constructed.

Every effort should be made to reduce the cost of production, and the workers should, on their part, drop the principle of "ca' canny," which it is believed they would do under a properly organised system which would ensure to them regular and continuous employment, or at any rate a regular means by which they could meet their current obligations to those depending on them.

With a long pull and a strong pull and a pull all together, and a general will to work hard and make a reasonable amount of sacrifice, there need be no fear as to the future of this country, and we should soon be able to make in our Public Health services those urgent reforms which are absolutely necessary if we are to secure the full purpose of life.

## General.

A FIRE, resulting in damage to the extent of about £10,000, occurred on the 19th inst. in the yards of Messrs. Wooldridge & Simpson, builders and contractors, Oxford. Incendiarism is suspected.

THE Housing Commissioner has authorised the acceptance by the Stamford Town Council of the tender of Messrs. Simms, Sons, & Cooke, Nottingham, of £49,959 for sixty-six houses on the new Cross Road site.

At a meeting of the Doncaster Rural Council on Saturday it was reported that tenders had been invited for the erection of ninety-three houses at Bawtry, and twenty-four were received. The lowest was £61,863, and the highest £87,644, and tenders were also received for laying out the streets, ranging from £11,081 to £5,572. The tenders were referred to the Housing Committee with a recommendation that the three lowest should be sent to the Housing Commissioner for his observations.

THE match between sides representing the R.I.B.A. and the A.A. will take place on the A.A. ground at Elstree on Wednesday, June 29. Play will begin at 11 A.M. sharp, and stumps will be drawn at 6.30 P.M. A motor 'bus with the A.A. team and supporters will start from the A.A. (34 Bedford Square) at 10 A.M. Any members of the R.I.B.A. team or supporters who wish to travel by this 'bus to Elstree will have seats reserved for them if they will kindly communicate with the Secretary, R.I.B.A., at once. The return fare is 3s. 9d. Lunch and tea will be served on the ground; lunch 2s. 6d., tea 1s.

At the annual meeting of the York Minster Old Choir Boys' Association held in York it was decided to place a large crucifix in the south transept of the Minster as a memorial to the twelve old boys who had fallen in the Great War. The Dean of York, who presided, announced that in memory of their fallen comrades, the 1st West Yorkshire Regiment were going to erect screens confronting the western aisle of the south transept, which would take the form of a chapel. These screens would be 27 feet high, elaborately painted and gilded, and along the top would be figures of angels. On big shields would be the arms of all the towns where the regiment had been engaged.

## Trade Notes.

THERE was a fire at the Hull works of Messrs. Major & Co., Ltd., last week owing to an accident to one of the stills. The fire was kept under control by the prompt and efficient actions of the Hull City Fire Brigade and was confined to the area of the works in which the fire originated. Unfortunately one of the workmen was caught by the sudden outbreak of fire and lost his life. Orders for "Solignum" and the other manufactures of the company will be executed as usual.

A FEATURE of particular interest on the R.I.B.A. Conference programme will be the visit to the new Cunard building at Liverpool. The architects for this construction were Messrs. Willink & Thicknesse and Messrs. Mewès & Davis, the contractors being Messrs. Holland & Hannen & Cubitts, Ltd. All the reinforced concrete work was designed by the Trussed Concrete Steel Co., Ltd., and their hollow fleretyle construction was adopted on account of its sound-proof qualities, so necessary in office buildings. The heavy reinforced concrete cornice on the building has been greatly commented upon, as it projects nearly 7 feet from the wall-face and is quite unique in its method of design.



# JAMES GIBBONS, LTD.

ST. JOHN'S WORKS

WOLVERHAMPTON

## GIBBONS' "COTTAGE" WINDOW WITH PATENT SLIDING SASH

British Patents Nos. 12630/18 ; 123903/18 and 5535 19. Also patented in U.S.A., France, Belgium, Australia, New Zealand, Canada, India and South Africa.

Light in  
Construction  
and Fireproof.



Standard Sizes  
from  
Stock.

All outside surfaces easily cleaned from the inside of the rooms, the sliding portion hinged to open inwards and fitted with attachment for locking the casement when partly opened for ventilation.

The first  
Cottages in  
Great Britain  
completed  
under the  
Government  
Housing  
Scheme,  
showing  
Gibbons'  
"Cottage"  
Windows  
fixed.



These  
Cottages  
are also fitted  
throughout  
with Gibbons'  
Locks and  
Furniture.

*FULL PARTICULARS ON APPLICATION.*

London Office : 15 & 16 FISHER STREET, SOUTHAMPTON ROW, W.C.1.



# THE ARCHITECT

FOUNDED 1869.

Incorporating "The Contract Reporter," 1885.  
 "The Builder's Reporter and Engineering Times."  
 "The Building Trade," 1913.

FRIDAY, JANUARY 7, 1921.

Owing to the increasing demand for back numbers we are compelled to give the following notice:—  
 All numbers for the past twelve months 9d. each, previous to that date 1s. each.

## EDITORIAL NOTICES.

The Editor will always be pleased to examine drawings or articles with a view to publication, but cannot be responsible for the safety of those sent, though every reasonable care will be taken. Contributors will be paid at our fixed rate unless a specific agreement is made, and contributors should state when writing whether they require payment. No payment will be made until after publication. A commission to prepare articles or drawings does not imply acceptance or approval until the actual matter sent has been approved by the Editor. Where photographs are sent for publication the senders must state at the outset if copyright fees for publication are due to the photographer. If no such statement is made the sender of such photographs will be held to have undertaken to pay any fees which may be legally demandable.

The Editor will be glad to receive from Architects results of Competitions, Tenders, and other particulars relating to works in progress both in London, the United Kingdom, our Colonies, and Foreign Countries.

## TENDERS, &c.

As great disappointment is frequently expressed at the non-appearance of Contracts Open, Tenders, &c., it is particularly requested that information of this description be forwarded to the Office, Imperial Buildings, Ludgate Circus, London, E.C., not later than 2 P.M. on Wednesdays.

## CONTRACTS OPEN.

AUDENSHAW.—Jan. 24.—For erection and completion of stone lych gate, at the main entrance to the churchyard of St. Stephen's, Audenshaw, for the War Memorial Committee. Deposit 5s. Mr. W. Brooks, 136 Trafalgar Street, Ashton-under-Lyne.

AYLESBURY.—Jan. 10.—For erecting a further 293 houses in connection with the Council's housing scheme. All the houses are on one site, to which a railway siding has been taken. Send application and £2 2s. deposit by January 10 to Mr. R. G. Muir, F.R.I.B.A., 1 Raymond Buildings, Gray's Inn, W.C. 1, or Messrs. Murrell & Pigott, A.A.R.I.B.A., 35 Bedford Row, London, W.C. 1.

BIRSTWITH.—For an additional storey to Messrs. F. T. Wood & Sons' Flour Mills, Birstwith, near Harrogate. All trades (joiners excepted). Messrs. Bland & Bown, F.R.I.B.A., architects, Harrogate.

BISHOP SUTTON.—Jan. 18.—For erection of fourteen houses at Bishop Sutton, for the Clutton Rural District Council. The houses will be built in pairs, and tenders may be for one or more pairs, not exceeding seven. Messrs. Thomas & Morgan & Partners, architects, 23 Gelliwastad Road, Pontypridd.

BOLTON-UPON-DEARNE.—Jan. 24.—For the erection of seventy-seven dwelling houses and the roads and sewers in connection therewith in Furlong Road, for the Urban District Council. The sites immediately adjoin the highway from Bolton-upon-Deane to Goldthorpe, and are about a quarter of a mile from Bolton-upon-Deane Station, Mid. and N.E. Railway. Messrs. Garside & Pennington, architects, Ropergate, Pontefract.

BRADFORD.—Jan. 11.—For all trades required in the erection of underground conveniences, Drummond Road and Carlisle Road, for the Corporation. The City Architect, Town Hall, Bradford.

BRIDLINGTON.—Jan. 25.—For alterations and additions to the police station at Bridlington, for the East Riding of Yorkshire County Council. Deposit £1 1s. The County architect, County Hall, Beverley.

CARMARTHEN.—Jan. 27.—For erection of the following houses, for the Carmarthen Rural District Council, viz.: Llanarthney Parish, fourteen houses near Gorslas and fourteen houses at Cefneithin; St. Clears Parish, eight houses near Britannia Terrace; St. Ishmael Parish, two houses at Ferryside. Deposit £2 2s. Mr. D. Thomas, architect, Quay Street, Ammanford.

CARNARVON.—Jan. 17.—For erection of 100 houses at Caehampton, Carnarvon, for the Corporation. Deposit £2 2s. Mr. R. Lloyd Jones, architect, 14 Market Street, Carnarvon.

CHARD.—Jan. 12.—For erection of twenty-four, or any smaller number in multiple of four class A houses and the construction of street works and sewers, for the Corporation. Send names before noon on January 12 to Mr. E. W. Hearn, borough surveyor, Municipal Offices, Chard.

CREDITON.—For the erection of the whole or any portion of the housing scheme (consisting of approximately 100 houses), for the Crediton Rural District Council. Messrs. Ellis, Son & Bowden, F.S.I., architects and surveyors, Bedford Chambers, Exeter.

CRICCIETH.—Jan. 14.—For erection of twenty-four houses, and for the construction of roadway, footpaths, sewers, &c., required in laying out the site, for the Criccieth Urban District Council. Deposit £4 4s. Messrs. O. M. Roberts & Son, M.S.A., architects, Bank Place, Portmadoc.

CROWLE.—Jan. 13.—For erection of twenty houses, for the Urban District Council. Mr. G. Sinclair, architect, 2 Church Parade, Crowle.

DARTMOUTH.—For erection of a block of twelve flats at Higher Street, also twenty-two houses at Avory's Meadow. Messrs. W. G. Couldrey & Son, architects, 19 Palace Avenue, Paignton.

DEWSBURY.—Jan. 14.—For erection of a physics laboratory and lavatories at the Wheelwright Grammar Schools. Messrs. C. H. Marriott, Son & Shaw, Church Street Chambers, Dewsbury.

EDINBURGH.—Jan. 12.—For the demolition of the old dwelling house and entrance lodge, known as Rosefield Cottage, Portobello, for the Edinburgh Town Council. Mr. J. A. Williamson, A.R.I.B.A., city architect, Public Works Office, City Chambers, Edinburgh.

EDMONTON.—Jan. 11.—For supply and delivery on the site of the works of widening Silver Street of about one hundred tons of British rolled steel joists, made of British steel, for the Edmonton Urban District Council. Mr. C. Brown, A.M.I.C.E., engineer, Town Hall, Edmonton.

GATESHEAD.—Jan. 19.—For the extension of the post office and telephone exchange at Gateshead. Deposit £1 1s. H.M. Office of Works, 63 Westgate Road, Newcastle-on-Tyne; and the Director of Contracts, H.M. Office of Works, London, S.W. 1.

GOLCAR.—For the various works required in erection of a branch store at Leymoor, Golcar, for the Golcar Co-operative Society, Ltd. Also for various works required in additions to the stores at Townend, Golcar. Messrs. Lunn & Kaye, architects and surveyors, Milnsbridge.

HANDFORTH.—Jan. 10.—For erection of nine dwelling houses and sets of outbuildings on the Handforth estate, for the Cheshire County Council. Send applications by January 10 to the County Land Agent, County Estate Office, 16 Nicholas Street, Chester.

HAVERTON HILL.—Jan. 15.—For erecting a police station at Haverton Hill, for the Durham County Council. Mr. A. E. Brookes, county surveyor and architect, Shire Hall, Durham.

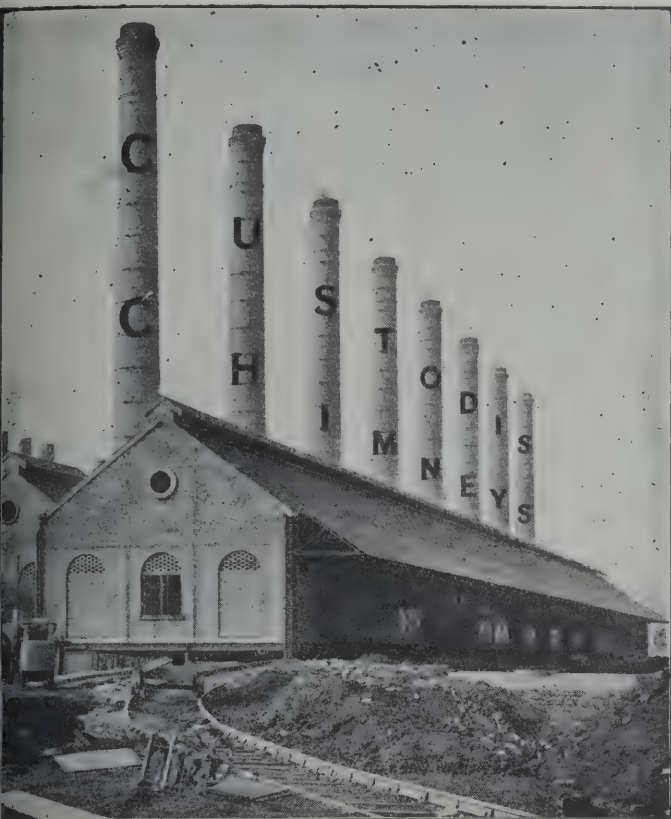
HUDDERSFIELD.—Jan. 21.—For erection of a three-storey warehouse and offices in Springwood Street, for Messrs. Jennens, Welch & Co., Ltd. Messrs. J. Berry & Sons, architects and surveyors, 3 Market Place, Huddersfield.

HULL.—Jan. 11.—For the erection of additional buildings at Cottingham Sanatorium, Hull. Deposit £1 1s. The Head Post Office, Hull, and the Director of Contracts, H.M. Office of Works, Storey's Gate, Westminster, S.W. 1.

LONDON.—Jan. 13.—For sundry repairs to the exterior of the Relief Offices at 38 St. Luke's Road, Westbourne Park, W., for the Kensington Board of Guardians. Mr. W. R. Stephens, clerk, Guardians' Offices, Marloes Road, Kensington, W. 8.

LONDON.—Jan. 12.—For small alterations to scullery at St. James's Infirmary, Ouseley Road, Balham, S.W. 12, for the Guardians of Wandsworth Union. Mr. F. J. Curtis, clerk, Union Offices, St. John's Hill, Wandsworth, S.W. 18.





EIGHT CHIMNEYS RECENTLY BUILT BY CUSTODIS, LTD.

Enquiries invited.

CUSTODIS, LTD.,

119 Victoria Street,  
WESTMINSTER, S.W.1.

TELEGRAMS—Custodomus Sowest.  
PHONE—779 Victoria.

# VENUS

17 degrees  
Blacklead  
6B (Softest)  
to  
9H (Hardest)

For  
Architects  
& Builders

Of all Stationers &  
Drawing Office Suppliers

6d. each, 5/8 per dozen.

# PENCILS

"VENUS" Lower Clapton Road E. 5.

LOW PRICES.

BEST WORK.



THE BRILLIANT SIGN CO. Ltd.,  
38 GRAY'S INN ROAD, LONDON.

18 Mount Street, Manchester.

25 Cookridge Street, Leeds.

Telephone: Museum 4931.



Experienced Men  
sent to all parts.

## SMEATON & SONS

REGISTERED PLUMBERS, SANITARY,  
HEATING, AND HOT WATER  
ENGINEERS.

Sanitary Surveys and Reports.  
Personal Supervision. Special  
Attention to Maintenance Work.

27 LAMB'S CONDUIT ST., LONDON, W.C. 1.

## BEAUDEXOL

SUPER WATER PAINT  
IN 40 STANDARD SHADES.

SPECIFY for the following reasons:—

BEAUDEXOL possesses the  
limit of obliterating and covering  
power and is therefore the  
cheapest.

BEAUDEXOL finishes with a  
surface of unequalled beauty  
and is therefore satisfying.

BEAUDEXOL dries hard and  
is therefore the most effective  
and economical decoration for  
the internal walls and ceilings  
of houses, churches, schools,  
hospitals and halls.

Tint Books and Samples sent on application.

BROWN & CRITCHLEY, LTD.,  
LENZIE, SCOTLAND.

Telegrams: Walpa, Lenzie.

Telephone: 51 Kirkintilloch.

LONDON.—Jan. 13.—For providing and setting of one 30-foot by 8-foot steel Lancashire steam boiler and fittings; also for extension of boiler-house at the Southwark Hospital, East Dulwich Grove, S.E., for the Guardians of Southwark Union. Mr. A. P. S. Smith, clerk, Union Offices, Ufford Street, Blackfriars, S.E.

LUTON.—Jan. 15.—For erection of twelve houses in Stratford Road, on their Dunstable Road housing site, for the Town Council. The quantities are for a block of four houses, and contractors are invited to tender for three blocks of the same design situated on adjoining sites. Deposit £2. Mr. B. C. Deacon, chairman of the Board of Architects 33 King Street, Luton.

MALTBY.—Jan. 19.—The West Riding Education Committee invite whole tenders for the following works: Maltby Council school—Temporary accommodation, erection of cloak-rooms, teachers' room, &c. The West Riding Education Architect, County Hall, Wakefield.

MIDDLETON-IN-WHARFEDALE.—Jan. 15.—The West Riding Public Health and Housing Committee invite tenders for the following works at the Sanatorium: (1) Laying out of grounds (landscape gardener's work); (2) conversion of Army huts into workshop, stores, and nurses' quarters (trades: Bricklayer, carpenter, plumber, and painter); (3) construction of macadamised roads and asphalted paths; (4) composite flooring. The West Riding Architect, County Hall, Wakefield.

MILLISLE. Jan. 31.—For erection of a Masonic Hall at Millisle. Mr. C. A. Aickin, architect, 20 Rosemary Street, Belfast.

NORTHALLERTON.—For erection and drainage work of thirty houses, for the Romanby housing scheme of the Northallerton Rural District Council. Builders may tender for the whole of the thirty houses, or for a less number, but not less than two houses. Mr. L. Linton, A.R.I.B.A., Northallerton.

NORTHFLEET.—Jan. 17.—For erection of 124 houses (or any lesser number) on the Northfleet House Estate, for the Urban District Council. The site on its south side abuts on the South-Eastern and Chatham Railway line and is a quarter of a mile by main London Road from Northfleet Station. Deposit £2 2s. Mr. G. E. Clay, A.R.I.B.A., Crescent House, Gravesend.

NOTTINGHAM.—Jan. 11.—For converting No. 28 Chaucer Street into medical inspection centre, for the Education Committee. Deposit £1. Mr. A. Dale, city architect, Guildhall, Nottingham.

RADWELL.—For erection of six cottages at Radwell (Herts), for the Hitchin Rural District Council. (Messrs. Bennett & Bidwell, architects, 2 Leys Avenue, Letchworth (Herts). Send applications and £1 1s. deposit to Mr. A. E. Passingham, clerk, 5 Bancroft, Hitchin, Herts.

RUGBY.—Jan. 14.—For the erection of a public convenience in Church Street, for the Rugby Urban District Council. Mr. J. H. Sharp, surveyor, Benn Buildings, High Street, Rugby.

SKIPTON.—Jan. 14.—For the following work in connection with their housing scheme, for the Urban District Council: (1) Erection of eight parlour houses and ten scullery houses in land off Carleton Road; (2) road-making and sewerage. Deposit £1 1s. Mr. Aldridge, surveyor, Town Hall, Skipton.

SOUTHWICK.—Jan. 27.—For erection of twenty-eight houses being the first instalment of the housing scheme for 100 houses, for the Southwick Urban District Council. Contractors may tender for any number of houses from four to the complete scheme. Mr. G. W. Warr, architect and surveyor, Town Hall, Southwick, Sussex.

STAFFORD.—Jan. 12.—For erection of fifty houses of the parlour type on the Lammascote housing estate, for the Corporation. Deposit £2 2s. Mr. W. Plant, borough engineer and surveyor, Borough Hall, Stafford.

STOCKPORT.—Jan. 10.—For the labour and materials required in erection of a motor-ambulance garage at the Fire Station, Mersey Square, for the Watch Committee. Mr. H. Hamer, A.M.I.C.E., borough surveyor, Town Hall, Stockport.

STROOD.—Jan. 13.—For work connected with the provision of additional lavatory accommodation at Lorne Villa, 32 Bryant Road, for the Guardians. Mr. G. E. Bond, architect, 384 High Street, Rochester.

SUTTON (SURREY).—Jan. 21.—For pulling down the buildings known as "Little Russells" and the "Croshams," situate in Carshalton Road, for the Sutton War Memorial Committee. Deposit 5s. Mr. J. W. Stanley Burmester, architect, 13 Queen Anne's Gate, Westminster, S.W. 1; or "Fairholme," Grange Road, Sutton, Surrey.

THURCROFT.—For all trades in the erection of a proposed house and shop at Thurcroft, near Rotherham. Mr. Robert Bloor, 157 Castleford Road, Normanton, Yorks.

TIMPERLEY.—Jan. 11.—For erection of twenty-five houses ("B" type) and the construction of roads and sewers in the township of Timperley, for the Bucklow Rural District Council. Deposit £2. Messrs. Halliday, Paterson & Agate, architects, 14 John Dalton Street, Manchester.

TORQUAY.—Jan. 14.—For erection in concrete of seventy-five houses on the Westhill Estate, for the Town Council. Contractors may tender for all or any number of the houses: Mr. J. E. Knapman, Housing Clerk and Registrar, Town Hall, Torquay.

WOODBIDGE.—Jan. 14.—For the erection of houses in all or any of the following parishes, for the Woodbridge Rural District Council:—Alderton, six houses; Bawdsey, two; Bredfield, four; Bromeswell, four; Melton, ten; Shotisham, two; Tuddenham, two; Ufford, ten. The houses will be built in pairs. (Mr. E. H. Payne, A.R.I.B.A., 11 John Street, Bedford Row, London, W.C. 1). Send application and £1 1s. deposit by January 14 to Mr. G. G. Kell, clerk to the Council, Board Room, Woodbridge.

## TENDERS.

### BATH.

For the extension of engine-room at electricity generating station, for the Town Council.

J. LONG & Sons (accepted) £5,798 0 0

### GIRVAN.

For the erection of sixty houses, for the Town Council.

#### Accepted tenders.

R. London, Glasgow (excavator, brick, &c.)	£25,887	0	0
W. Paton & Son, Ayr (carpenter and joiner)	19,725	0	0
W. Auld & Sons, Ayr (plumber)	10,886	0	0
W. & H. Steel & W. Black, Girvan (slater and roughcast)	5,193	0	0
W. A. Vass, Ayr (plasterer)	3,893	0	0
W. Paterson, Girvan (painter)	2,143	0	0
Baillie & Telfer, Garnethill (glazier)	371	0	0

### KIRKINTILLOCH.

For the erection of houses, for the Town Council.

#### Accepted tenders.

##### W. Section.

J. Porter & Son (excavator and brick-work)	£38,118	0	0
J. Peter & Son (carpenter and joiner)	28,894	0	0
J. Somerville (plumber)	11,249	0	0
H. Arbuckle & Son (slater)	7,644	0	0
J. Stewart (plasterer)	6,498	0	0
Logan & Gray (painter)	1,886	0	0

##### E. Section.

Neil Kerr & Son (excavator and brick-work)	40,251	0	0
Cochrane Bros. (carpenter and joiner)	30,322	0	0
W. Hendry & Son (plumber)	11,946	0	0
R. Ewing (slater)	9,028	0	0
A. Somerville (plasterer)	6,969	0	0
Logan & Gray (painter)	2,040	0	0

### MOLD.

For the erection of fifty-four houses (twenty-eight parlour and twenty-six non-parlour), for the Urban District Council.

T. ROBERTS & Co., Mold (provisionally accepted) £58,020 0 0

### SAFFRON WALDEN.

For the erection of thirty-three B type houses (being the first portion of their housing scheme) at the Delnden Road site, for the Corporation. Mr. A. H. Forbes, borough surveyor, Saffron Walden.

Antony Fasey & Son	£39,932	0	0
James White	38,905	0	0
Mason & Son	37,772	0	0
Joseph Custerson	36,925	0	0
Bell & Sons	36,044	0	0
Coulson & Son, Cambridge (accepted)	34,665	0	0



**THE DELTA METAL COMPANY, Ltd.**  
East Greenwich, London, S.E. 10.

**DELTA BRONZE FOR ART METAL WORK.**

**EXTRUDED BARS AND SECTIONS**  
"DELTA BRAND," in Brass, Bronze, Copper, &c.

**PRAGUE-HAYCOCK Ltd.**  
PRINTERS AND LITHOGRAPHERS.

ills of Quantities, Estate Plans, Particu-  
rs of Sale, Reproductions of Architectural  
rawings, and every class of Lithographic  
and Letterpress Printing,

*Efficiency, Promptitude & Excellence."*

OTE ONLY ADDRESS:—  
) & 70 Dean St., Soho, London, W. 1.  
Telephone: GERRARD 3274.

**LIGHTNING CONDUCTORS.**

Wholesale Manufacturers and Erectors  
**V. J. FURSE & CO.**  
TRAFFIC STREET, NOTTINGHAM.  
Chimneys Erected and Repaired. Church Spires Restored  
Telegrams: "FURSE, NOTTINGHAM."

**LAUNDRY MACHINERY**  
Catalogue (281) Free.

**COOKING APPARATUS.**

**BATHS, WASH-HOUSE FITTINGS**

**T. BRADFORD & CO.**  
LONDON, LIVERPOOL, MANCHESTER

**THE British Traders' Association**

For the Protection of the Building and Hardware Trades  
Managers: **CORFIELD & CRIPWELL**,  
119 Finsbury Pavement, LONDON, E.C.  
12 Cherry Street, BIRMINGHAM.  
Subscription of £1 5s. per annum entitles the Member to  
Status Reports, to the Collection of 10 Accounts in England  
& Wales free of Commission, and to any registered informa-  
tion on the books. Continuous Reports a Speciality. Weekly  
bulletin issued. Membership limited to Wholesale Firms.  
**STATUS INQUIRIES, DEBT RECOVERY,**  
**INVESTIGATIONS AND INSOLVENCY DEPARTMENT**

**WOOD IRON AND STEEL**

**REVOLVING SHUTTERS**

FOR SHOPS, GOODS TRAM, ENGINE & CARRIAGE SHEDS

**LODKINSON & CO.** 23 Coventry Road, BIRMINGHAM.

**OGILVIE & CO.**

Many years connected with the late firm of W. H. Lascelles & Co., of Bunhill Row. Telephone Dalston 1388.  
**Mildmay Avenue, Islington, N.**  
**EXPERTS IN HIGH-CLASS JOINERY.**  
Alterations & Decorations. ESTIMATES FREE.

**WELDON STONE.**

A WEATHER STONE OF THE FIRST QUALITY. Suitable for all kinds of BUILDING and ORNAMENTAL WORK, as testified by its use for upwards of three centuries.  
WELDON STONE tools with facility, and combines CHEAPNESS with GREAT DURABILITY and EVEN COLOUR. For Prices and other Particulars apply to F. St. B. GREGORIE, WELDON STONE QUARRIES, WELDON, KETTERING.

**THE LONDON & LANCASHIRE INSURANCE CO. LTD**

SECURITY £9,804,732

Head Offices: { 45 Dale Street, Liverpool.  
155 Leadenhall Street, London, E.C. 3.  
Chief Administration—  
5 & 7 Chancery Lane, London, W.C. 2.

**FIRE. CONSEQUENTIAL LOSS.**  
**BURGLARY. ACCIDENTS. MOTOR CARS.**  
**EMPLOYERS' LIABILITY. MARINE.**  
Insurance against **BOILER EXPLOSION** and **ENGINE BREAKDOWN.**

**BUILDINGS STEAM CLEANED.**

Improved Process. No Injury to the Fabric.  
**THE STEAM CLEANING CORPORATION,**  
9a Little James St., Gray's Inn Rd., London, W.C. 1.

**GREAVES' PORTLAND CEMENT,**  
Ground BLUE LIAS LIME  
and **SELENITIC PLASTER.**  
Established 1840.

**GREAVES, BULL & LAKIN, LTD.,**  
HARBURY, WARWICKSHIRE.

**ALEX. FINDLAY & CO. LTD.,**

MOTHERWELL, SCOTLAND.  
**STEEL ROOF AND BRIDGE BUILDERS.**  
**STRUCTURAL ENGINEERS.**  
Contractors for the Main Buildings and Great Stadium for the Franco-British Exhibition, London, 1908.  
LONDON OFFICE: 9 VICTORIA ST., S.W.

**KINNEAR**

PATENT STEEL ROLLING

**SHUTTERS**

for

Car and Bus Depots,  
Generating Stations,  
Boiler Houses,  
Harbour Warehouses  
Core Ovens,  
Garages, and  
Entrances Generally.

On Admiralty, War Office and other Lists.

**ARTHUR L. GIBSON**  
Radnor Works, TWICKENHAM

GLASGOW: MANCHESTER:  
121 West George St. 90 Deansgate.

**CARNARVON GREY SLATES.**

From RHOS SLATE QUARRY (Capel Curig) and BETTWS-Y-COED Slate & Slab Quarry.  
**JOHN J. RILEY, DEGANWY, N. Wales.**

For PHOTOGRAPHY of all kinds,  
SEND TO

**LANGFIER**

Commercial Dept.,  
343 Finchley Rd, Hampstead, N.W. 3  
Phone: 1250 HAMPSTEAD.

**WROT IRONWORK.**

Gates and Railings, Verandahs and Porches,  
Builders' Ironwork, General Smithing and Forgings.

**CONSTRUCTIONAL WORK.**

Wire Rope Suspension Bridges, Roof Principals,  
Doors, Staircases, and General Framed Structures.

**E. W. SWEET & CO., Engineers,**  
FISHPONDS, BRISTOL.

Special attention given to Repetition Work.

**WHITLEY PARTNERS**

RAILWAY WORKS,  
LEEDS,

Sole Makers of the ORIGINAL  
and only **GENUINE PEET'S**  
**PATENT FULL-WAY STOP**  
**VALVE,** in Brass and Iron.

TWENTY-THREE DIFFERENT SIZES.

**RICHD. D. BATCHELOR**

**WATER**

Artesian & Consulting Well Engineer.  
Complete Installations.  
for Towns, Estates, Factories, &c.

73 Queen Victoria St., London, and Artois Works, Chatham.

Telegrams { Watershed, Chatham.  
Boreholes Cent, London.

ESTABLISHED OVER A CENTURY.

Telephones { 4725 City.  
71 Chatham



# THE ARCHITECT

FOUNDED 1869.

Incorporating "The Contract Reporter," 1885.  
 "The Builder's Reporter and Engineering Times."  
 "The Building Trade," 1913.

FRIDAY, JANUARY 14, 1921.

*Owing to the increasing demand for back numbers we are compelled to give the following notice:—*

*All numbers for the past twelve months 9d. each, previous to that date 1s. each.*

## EDITORIAL NOTICES.

*The Editor will always be pleased to examine drawings or articles with a view to publication, but cannot be responsible for the safety of those sent, though every reasonable care will be taken. Contributors will be paid at our fixed rate unless a specific agreement is made, and contributors should state when writing whether they require payment. No payment will be made until after publication. A commission to prepare articles or drawings does not imply acceptance or approval until the actual matter sent has been approved by the Editor. Where photographs are sent for publication the senders must state at the outset if copyright fees for publication are due to the photographer. If no such statement is made the sender of such photographs will be held to have undertaken to pay any fees which may be legally demandable.*

## TENDERS, &c.

*\*\* As great disappointment is frequently expressed at the non-appearance of Contracts Open, Tenders, &c., it is particularly requested that information of this description be forwarded to the Office, Imperial Buildings, Ludgate Circus, London, E.C., not later than 2 P.M. on Wednesdays.*

## CONTRACTS OPEN.

**AUDENSHAW.**—Jan. 24.—For erection and completion of stone lych gate, at the main entrance to the churchyard of St. Stephen's, Audenshaw, for the War Memorial Committee. Deposit 5s. Mr. W. Brooks, 136 Trafalgar Street, Ashton-under-Lyne.

**BISHOP SUTTON.**—Jan. 18.—For erection of fourteen houses at Bishop Sutton, for the Clutton Rural District Council. The houses will be built in pairs, and tenders may be for one or more pairs, not exceeding seven. Messrs. Thomas & Morgan & Partners, architects, 23 Gelliwastad Road, Pontypridd.

**BOLTON-UPON-DEARNE.**—Jan. 24.—For the erection of seventy-seven dwelling houses and the roads and sewers in connection therewith in Furlong Road, for the Urban District Council. The sites immediately adjoin the highway from Bolton-upon-Dearne to Goldthorpe, and are about a quarter of a mile from Bolton-upon-Dearne Station, Mid. and N.E. Railway. Messrs. Garside & Pennington, architects, Ropergate, Pontefract.

**BRIDGWATER.**—Jan. 15.—For alterations to, and the conversion into three cottages of, the building in Friars Court, adjoining Cannington Court, Bridgwater, for the Somerset County Council. Send application and £1 1s. deposit not later than January 15 to Messrs. Samson & Colthurst, architects, 51 High Street, Bridgwater.

**BRIDLINGTON.**—Jan. 25.—For alterations and additions to the police station at Bridlington, for the East Riding of Yorkshire County Council. Deposit £1 1s. The County architect, County Hall, Beverley.

**CARMARTHEN.**—Jan. 27.—For erection of the following houses, for the Carmarthen Rural District Council, viz.: Llanarthney Parish, fourteen houses near Gorslas and fourteen houses at Cefneithin; St. Clears Parish, eight houses near Britannia Terrace; St. Ishmael Parish, two houses at Ferryside. Deposit £2 2s. Mr. D. Thomas, architect, Quay Street, Ammanford

**DORCHESTER.**—Jan. 27.—For altering the East block at the R.H.A. Barracks into a large drill hall and administration block for the 4th Battalion Headquarters; the provision of Sergeant-Instructor's quarters, and other work, for the Dorset Territorial Force Association. Deposit £3 3s. Mr. F. T. Maltby, A.M.I.C.E., Dorchester.

**FIFE.**—Jan. 30.—Fife Education Authority invite tenders for the following:—Park Road School, Rosyth. Electric lighting, heating work, and painter work; Crossgates New School, heating work. Deposit £1 1s. Mr. R. H. Motion, architect, Union Bank Chambers, Dunfermline. Mr. C. R. Douglas, surveyor, 15 East Port, Dunfermline.

**GATESHEAD.**—Jan. 19.—For the extension of the post office and telephone exchange at Gateshead. Deposit £1 1s. H.M. Office of Works, 63 Westgate Road, Newcastle-on-Tyne; and the Director of Contracts, H.M. Office of Works, London, S.W. 1.

**GLAMORGAN.**—Jan. 17.—The Glamorgan Education Authority desire to contract for the following works, subject to their usual general conditions:—1.—Port Talbot Intermediate School, fencing of playing field at Talbach; 2.—Three Crosses Council School, new casement windows for mixed department; 3.—Lower Loughor Council School, new folding partition; 4.—Dinas Isaf School site, Edmonstown, near Penygraig, erecting reinforced concrete post and wire fence; 5.—New Infants' Department at Kingsbridge, near Gowerton; 6.—Penrhiwfer Council School, minor repairs. Mr. H. D. Rowland, assistant secretary to the Education Committee, Glamorgan County Hall, Cardiff.

**GLAMORGAN.**—Jan. 19.—For taking down parapet walls of the Ynis-y-Bont Bridge on the Neath and Ystradgynlais Road, and providing and erecting iron railings in place thereof, for the Glamorgan County Council. Mr. W. E. R. Allen, deputy clerk, Glamorgan County Hall, Cardiff.

**HEMSWORTH.**—Hemsworth Rural District Council invite tenders in whole or separate trades for the erection and completion of Great Houghton (near Barnsley) housing scheme, ninety-four houses, Grimethorpe (near Barnsley) housing scheme, sixty-eight houses, of various types, and the making of roads and construction of sewers in connection with their Housing Schemes in Great Houghton and Grimethorpe, near Barnsley. The Council also desire the contractors to submit prices for blocks of ten and twenty houses. Deposit £1 1s. Messrs. W. H. Wagstaff & Sons, architects, 57 Salter Gate, Chesterfield, or Mr. R. Higginbottom, Shepherd's Lane, Thurnscoe, near Rotherham.

**HUDDERSFIELD.**—Jan. 21.—For erection of a three-storey warehouse and offices in Springwood Street, for Messrs. Jennens, Welch & Co., Ltd. Messrs. J. Berry & Sons, architects and surveyors, 3 Market Place, Huddersfield.

**KNARESBOROUGH.**—Feb. 7.—For the erection and completion of ten houses at Pannal and twelve houses at Hampsthwaite (all trades), for the Rural District Council of Knareborough. Tenders are also invited for the layout at Pannal (street and sewer). Messrs. W. Hill & Sons, architects, 38 Albion Street, Leeds.

**LUTON.**—Jan. 15.—For erection of twelve houses in Stratford Road, on their Dunstable Road housing site, for the Town Council. The quantities are for a block of four houses, and contractors are invited to tender for three blocks of the same design situated on adjoining sites. Deposit £2. Mr. B. C. Deacon, chairman of the Board of Architects 33 King Street, Luton.

**LUTON.**—Feb. 8.—For erection of a new Post Office and Telephone Exchange. Deposit £1 1s. The Head Post Office, Luton, or the Director of Contracts, H.M. Office of Works, &c., Storey's Gate, Westminster, London, S.W. 1.

**MALTBY.**—Jan. 19.—The West Riding Education Committee invite whole tenders for the following works: Maltby Council school—Temporary accommodation, erection of cloak-rooms, teachers' room, &c. The West Riding Education Architect, County Hall, Wakefield.

**MIDDLETON-IN-WHARFEDALE.**—Jan. 15.—The West Riding Public Health and Housing Committee invite tenders for the following works at the Sanatorium: (1) Laying out of grounds (landscape gardener's work); (2) conversion of Army huts into workshop, stores, and nurses' quarters (trades: Bricklayer, carpenter, plumber, and painter); (3) construction of macadamised roads and asphalted paths; (4) composite flooring. The West Riding Architect, County Hall, Wakefield.

**MILLISLE.**—Jan. 31.—For erection of a Masonic Hall at Millisle. Mr. C. A. Aickin, architect, 20 Rosemary Street, Belfast.



SPECIFY

**THE MOST EFFICIENT****VAUGHAN'S  
PURE BITUMEN  
DAMP-PROOF COURSES**

Made from Highest-Grade Materials.  
Extensively specified for Important  
Contracts, Housing Schemes, etc.

**ROOFING FELTS**

- "REXOID"** SELF-FINISHED BITUMEN ROOFING.  
**"DUREX"** SMOOTH, FLEXIBLE FELT FOR ROOFING AND SARKING.  
**"DURITE"** SUPERIOR BITUMEN UNDERSLATING, Etc.

For Samples, etc., apply to Manufacturers:

**H. R. VAUGHAN & CO. Ltd.,**  
 (Dept. A) Works: GATESHEAD-ON-TYNE.  
 Preston, Lancs, and Bishop Auckland.

LOW PRICES.

BEST WORK.



**THE BRILLIANT SIGN CO. Ltd.,**  
 38 GRAY'S INN ROAD, LONDON.

18 Mount Street, Manchester.

25 Cookridge Street, Leeds.

**MOTOR LORRIES**

BUILDERS AND CONTRACTORS, DO YOUR OWN  
HAULAGE.

WE CAN SUPPLY YOUR WANTS.

EVERY DESCRIPTION OF MOTOR VEHICLE IN  
STOCK FOR IMMEDIATE DELIVERY.

LET US ADVISE AND SUPPLY YOU.

**DODD & CRUMLIN,**  
 29 GT. PULTENEY STREET,  
 LONDON, W. 1.

Grams: "Dodd, Goldenhouse. London."

Phone: Gerrard 1316.

**"PICUS" PLYWOOD**

*LIGHT, STRONG,  
 WATERPROOF  
 EASILY WORKED.*

Specially suitable for:  
**PANELLING  
 CEILINGS  
 DOORS  
 CUPBOARDS, Etc.**

Prices and Samples of the Sole Agents

**C. LEARY & CO.**

LONDON: 85 Gracechurch Street, E.C. 3.  
 LIVERPOOL: 27 Exchange Chambers, Bixteth St.  
 NEWCASTLE-ON-TYNE: Consett Chmbs., Pilgrim St.  
 also CANT & KEMP, 52 St. Enoch Sq., Glasgow.



Platers' Shed at Large  
Shipbuilding Yard,  
coated with  
"Bitumastic" Solution.

**"BITUMASTIC"**

Regd. Trade Mark.

**Lengthens Life of Steel and Iron  
 Structures by Preventing Rust.**

It lasts longer, dries quicker, goes much  
further, and costs less than oil paints.  
Although hitherto obtainable in Black  
only; Red, Brown, and Green shades  
can now be supplied possessing the  
lasting qualities of the Black, with the ad-  
ditional advantage of permanent colour.

**WAILES DOVE BITUMASTIC LTD.,**

NEWCASTLE-ON-TYNE, London, Liverpool, Glasgow, Leeds,  
 Manchester, Birmingham, Hull, Cardiff, Dublin, New York, etc.

Telegrams: "Bitumastic."

Telephones in Every Office.



**NORTHFLEET.**—Jan. 17.—For erection of 124 houses (or any lesser number) on the Northfleet House Estate, for the Urban District Council. The site on its south side abuts on the South-Eastern and Chatham Railway line and is a quarter of a mile by main London Road from Northfleet Station. Deposit £2 2s. Mr. G. E. Clay, A.R.I.B.A., Crescent House, Gravesend.

**QUEENSBURY.**—Jan. 26.—For erection of thirty houses, for the Urban District Council. Mr. Herbert F. Sharpe, architects, Old Bank Chambers, Great Horton; and Messrs. John Drake & Son, architects, Queensbury.

**SOUTHWICK.**—Jan. 27.—For erection of twenty-eight houses being the first instalment of the housing scheme for 100 houses, for the Southwick Urban District Council. Contractors may tender for any number of houses from four to the complete scheme. Mr. G. W. Warr, architect and surveyor, Town Hall, Southwick, Sussex.

**STONE.**—Jan. 15.—For erection of houses in connection with the housing scheme on "The Pads" site, for the Stone Urban District Council, including the preliminary work and road-making. Send application by January 15 to Mr. C. H. Matthews, clerk, Westbridge House, Stone, Staffs.

**SUTTON (SURREY).**—Jan. 21.—For pulling down the buildings known as "Little Russells" and the "Croshams," situate in Carshalton Road, for the Sutton War Memorial Committee. Deposit 5s. Mr. J. W. Stanley Burmester, architect, 13 Queen Anne's Gate, Westminster, S.W. 1; or "Fairholme," Grange Road, Sutton, Surrey.

## TENDERS.

### FINCHLEY.

For conversion of five courts at Christ's College, Finchley, into workshop for the Education Committee of the County Council of Middlesex. Mr. H. G. Crothall, F.R.I.B.A., County Architect.

W. Lacey . . . . .	£1,995	0	0
A. Monk . . . . .	1,915	0	0
W. Lawrence & Son . . . . .	1,798	0	0
Brand Pettit & Co. . . . .	1,784	0	0
Mattock Bros. . . . .	1,740	0	0
W. Gibson & Co. . . . .	1,697	0	0
C. J. Newby & Bros. . . . .	1,660	0	0
C. F. Cole . . . . .	1,497	0	0
Wm. Crosby & Sons . . . . .	1,458	8	6
H. KNIGHT & SON (recommended) . . . . .	1,451	0	0

### WALTHAMSTOW.

For painting, distempering, and varnishing, &c., to the interior of the single-storey buildings, Chapel End Schools. Contract No. 2. Mr. H. Prosser, M.S.A., Architect to the Education Committee.

A. G. Barton, . . . . .	£395	0	0
S. Blow, Ltd. . . . .	364	10	0
J. & J. Dean . . . . .	345	0	0
J. Sands . . . . .	340	0	0
E. Fuller & Son . . . . .	330	0	0
Lucas Bros. . . . .	289	0	0
F. E. McBRIDE, Walthamstow, E. 17 (accepted) . . . . .	257	9	0

For additions to out-offices at the Markhouse Road Girls' School. Mr. H. Prosser, M.S.A., Architect to the Education Committee.

J. Sands . . . . .	£350	0	0
J. & J. DEAN, Walthamstow, E. 17 (accepted) . . . . .	265	0	0

For painting, distempering, and varnishing the interior of the Chapel End school (3-floor block). Contract No. 1. Mr. H. Prosser, M.S.A., Architect to the Education Committee.

S. Blow, Ltd. . . . .	£934	10	0
J. Sands . . . . .	860	0	0
A. G. Barton . . . . .	824	0	0
E. Fuller & Son . . . . .	795	0	0
F. E. McBride . . . . .	767	10	0
J. & J. Dean . . . . .	649	0	0
LUCAS BROS., Walthamstow, E. 17 (accepted) . . . . .	631	0	0

For painting, distempering, and varnishing, &c., to the interior of the board room and offices of the Walthamstow Education Committee. Mr. H. Prosser, M.S.A., Architect to the Education Committee.

J. & J. Dean . . . . .	£240	0	0
J. SANDS, Walthamstow, E. 17 (accepted) . . . . .	206	0	0

## WIDFORD.

For rebuilding Widford Bridge, for the Essex County Council.

D. & C. FRENCH, Buckhurst Hill  
(accepted) . . . . . £13,800 0 0

## General.

THE Millom Urban Council have unanimously confirmed a resolution in favour of a new additional reservoir. It is estimated to cost £50,000, and will have a storage capacity of twenty million gallons. The existing reservoir has a capacity of twenty-eight million gallons, all of which is not usable, and during recent dry spells the supply has been unequal to the demand.

THE National Bank of Scotland are about to set up a bronze tablet at their head office in Edinburgh to commemorate the seventy-eight members of the staff who laid down their lives for their country in the recent struggle. Details have now been arranged by Sir James Guthrie, R.S.A., and Mr. Alex. N. Paterson, F.R.I.B.A. The memorial will be placed in the entrance hall of the Bank, and a list of the names of those who fell will be inscribed.

THE Somerset County Council last week decided to purchase the Quantock Lodge estate at a cost of £23,000 for adaptation as a tuberculosis sanatorium in preference to erecting a new institution on the recently-purchased estate at Lyncombe Hill. It is estimated that the alterations will cost a further £29,620. Messrs. Martin, Martin & W. H. Ward, of Birmingham, are to be appointed the architects for the necessary alterations, &c., at Quantock Lodge, in lieu of their appointment as architects for Lyncombe Hill, if satisfactory arrangements can be made with them.

GLASGOW Corporation on Thursday resolved, subject to the approval of the Scottish Board of Health, to purchase the brickworks at Kersland and Carsehead Dalry, at the price of £45,000 instead of £60,000 originally asked for. Mr. Wheatley, who submitted the proposal, stated that at present Glasgow was not getting one-tenth of the bricks required for its housing schemes; and those obtained were manufactured in London at 58s. per 1,000, and carriage brought the price up to 163s. per 1,000 delivered in Glasgow. It is estimated that the bricks from Dalry will cost 52s. 2d. per 1,000 inclusive of all charges.

In an article in "To-day and To-morrow," the organ of the League of Nations Union, the editor, referring to the need for a greatly improved Consular service, states that in a big town on the Continent a large hotel was being built. The proprietor wanted to fit it with baths of British make. He asked the Consul for the name of a good bath manufacturer. The Consul telegraphed to London, and received this official reply: "See page — of 'Kelly's Directory.'" Here he found a list of manufacturers of all kinds of ironware, nothing particular about baths. The hotel proprietor shrugged his shoulders and ordered the baths elsewhere. The German Consulates were always able to supply accurate and helpful information at once.

## Trade Notes.

THE Rawlplug Co., Ltd., Lenhall Place, South Kensington, have been awarded, within a period of under four months, two gold medals, one bronze medal, and two diplomas, for their patent Rawlplugs. Rawlplugs are special fibre plugs, by means of which a perfectly firm fixture can be obtained in any material, even glass, in one-sixth of the time required by the old method of using a cold chisel and a large unsightly wood plug.

MESSRS. J. H. SANKEY & SON, LTD., Essex Wharf, Canning Town, recently gave their second annual dinner to their managers, representatives, and clerical staff at the Café Monico. A company of about sixty sat down, presided over by the chairman and managing director, Mr. Charles Sankey. After dinner and speeches the whole party adjourned to the London Pavilion to see "London, Paris and New York," seats for which had been booked for all by the firm.

THE Hollinswood employees of Messrs. William Shepherd & Sons, Ltd., Tarmacadam manufacturers, of Hollinswood and Rochdale, were recently entertained, together with representatives of the Lilleshall Co., Ltd., the G.W.R., L. and N.W.R. Companies, and Messrs. Wilson Lovatt & Sons, Ltd., the contractors erecting and operating the companies' asphaltic slag works, Hollinswood and Oakenates, to a dinner and concert, under the direction of the works manager, Mr. R. Robinson, who was supported by Mr. J. Robinson, of Messrs. The Lilleshall Co., Ltd., who occupied the chair. About eighty persons were present.



# JAMES GIBBONS, LTD.

ST. JOHN'S WORKS

WOLVERHAMPTON

## GIBBONS' "COTTAGE" WINDOW WITH PATENT SLIDING SASH

British Patents Nos. 12630/18 ; 123903/18 and 5535/19. Also patented in U.S.A., France, Belgium, Australia, New Zealand, Canada, India and South Africa.

Light in  
Construction  
and Fireproof.



Standard Sizes  
from  
Stock.

All outside surfaces easily cleaned from the inside of the rooms, the sliding portion hinged to open inwards and fitted with attachment for locking the casement when partly opened for ventilation.

The first  
Cottages in  
Great Britain  
completed  
under the  
Government  
Housing  
Scheme;  
showing  
Gibbons'  
"Cottage"  
Windows  
fixed.



These  
Cottages  
are also fitted  
throughout  
with Gibbons'  
Locks and  
Furniture.

FULL PARTICULARS ON APPLICATION.

London Office : 15 & 16 FISHER STREET, SOUTHAMPTON ROW, W.C. 1.



## Progress in English Sanitation.\*

A DIRECT outcome of the Great War is that we have been made acquainted with the hygienic condition of the people. If the general health of the nation can be improved and the period of living increased by means of knowledge gained at so high a price, it will go far to compensate for the great losses sustained.

A report upon the physical examination of men of military age by the National Service Boards stated in a summarised general conclusion: "Medical examinations showed that of every nine men of military age in Great Britain, on the average three were perfectly fit and healthy; two were on a definitely infirm plane of health and strength, whether from some disability or some failure in development; three were incapable of undergoing more than a very moderate degree of physical exertion, and could almost (in view of their age) be described with justice as physical wrecks; and the remaining man as a chronic invalid with a precarious hold upon life."

This statement, although referring only to men of military age, may be taken as a fair index of the health of the country generally. Surely this record does not redound to the credit of a country which has for nearly a century been recognised as having taken the lead in all matters pertaining to the protection of health. There is room for fear—much fear, indeed—that our advance in some directions is attended with retrograde changes of a very deplorable nature in others.

Health and disease are comparative terms and may be taken as indicating the relative capacity of a person to perform the ordinary duties of life. Some of the conditions which govern the laws of health are entirely under the control of the individual, and, on the other hand, there are matters governing the health of the people over which the individual has little or no control.

Ignorance constitutes to a very large extent the cause of neglect of these laws, and to combat this ignorance every effort should be made to instruct the people in the art of promoting health and prolonging life by observing the simple laws of hygiene. When this knowledge is general all else will be simple and practicable; without it no real progress can be made.

The compulsory teaching of hygiene in elementary schools and popular lectures at secondary schools and public institutions would do much to educate the people up to the point of recognising the community of interest which should exist between the individual and the nation generally in matters relating to health, and, in a few years, would have a marked effect on the general health of the public.

The value of health to the nation has been recognised for centuries—it is the nation's greatest asset and cannot be overestimated—Disraeli once said: "The Public Health is the foundation on which repose the happiness of the people and the power of a country. The care of the Public Health is the first duty of a statesman."

The amount of time lost from employment due to sickness, which also entails a huge financial loss to the country, is enormous. Sir Geo. Newman, K.C.B., the Chief Medical Officer of the Ministry of Health, in a recent memorandum showed that at least 12,643,936 weeks' work were lost through sickness during the year 1916, or a period equal to 243,000 years. These figures refer only to insured persons (some 10 millions) in England alone, and do not include those who were absent from work for periods less than four days. They, therefore, represent only a fraction of the total losses occasioned by ill-health.

Terrible were the conditions prevailing seventy-five to eighty years ago, and it is not to be wondered at that fever and disease was prevalent to an alarming extent throughout the country. Epidemics of cholera and typhus were of frequent occurrence and the mortality was enormous. In 1849 it is estimated that over 530,000 persons in the country were attacked with

cholera, alone resulting in 53,293 deaths. It is worthy of notice that the most deadly effects were produced in the most insanitary districts, and always in the filthiest and most densely-populated parts of those districts.

Modern sanitation on a scientific basis may be said to date from the passing of two Acts—*Towns Improvements Clauses Act of 1847* and the *first Public Health Act in 1848*. There was much to contend with in those days which seriously retarded progress—the general education of the people was of an exceedingly low standard and superstition was rife. Disease was a scourge sent by the will of God.

In 1869 a Royal Sanitary Commission was appointed, and they recommended that "the present fragmentary and confused sanitary legislation should be consolidated." The outcome of the work of the Commission was the principal *Public Health Act*, which came into being in 1875, and this, with its amendments and numerous other Acts dealing with sanitary matters passed since, constitutes the present-day law with regard to sanitation, and it would seem that the time is again ripe for the consolidation of the sanitary Acts into one *Public Health Act*.

The sanitary condition of the country would be extremely good were the laws and by-laws in this respect strictly enforced and properly applied. But have we brought our practice up to date with our theoretical knowledge? If so, it is somewhat disappointing that the percentage of sickness in the country is so great.

Many of the smaller districts at the present day are in a most insanitary and neglected condition, either from neglect or financial inability, on the part of the local authorities of such districts to employ full time or competent officials. Their condition would appear equally bad with those existent in the early part of the nineteenth century. Sanitary Acts and by-laws would appear to have been entirely ignored.

Large towns are invariably better administered with regard to sanitary requirements than smaller towns, and it might well be considered whether the grouping together of small adjacent districts for the purpose of sanitary administration could not be enforced with advantage. The economy effected by the employment of part-time officials with little or no experience of public work is frequently accomplished at the expense of the public health.

Every local sanitary authority, including County Councils, must appoint a Medical Officer of Health, who is responsible to the authority for the health of the district. This is, of course, as it should be, but included in the multifarious duties of a Medical Officer of Health are responsibilities as to house drainage, sewerage, ventilation, housing, sanitary accommodation, and such matters as are foreign to his training as a medical man.

Such work as that referred to can only be properly supervised by one who has had a practical training in Sanitary Engineering, and if, owing to the smallness of the district, such an official holds a subordinate position, he should be responsible to the Engineer.

Public health covers so wide a field that help is needed from all,—from the physician, chemist, geologist, engineer, and from the most humble citizen, each doing his best in that capacity for which he is most suited.

There is yet a great scope for sanitary engineers in the improvement of existing conditions. We are not perfect, and can never expect to be so in such a progressive science as that of sanitation, but we have got behindhand in the practical application of our knowledge. We know what is wanted to a great extent to promote improvement, and it is up to the specialists in the practical application of Sanitary Science to do all that is in their power to attain this object.

With all our knowledge, do we not find to-day, as did the ancients, that the problem of health finds its solution, in a great measure, in the observation of simple cleanliness, or, following the counsel of the wise Hippocrates, to provide for pure air, pure water, and a pure soil?

\* Extracts from the Presidential Address by Mr. Nandy Hoskins, delivered before the Institution of Sanitary Engineers on January 5.



## Church Bells

"Like Sweet Bells, jangled,  
Out of tune and harsh."  
—SHAKESPEARE.



In this quaint old Church—Wimborne Minster—we re-cast eight bells and supplied two new ones—all in perfect tune.

SHAKESPEARE had no liking for bells that were out of tune. There is no reason why anything but sweet music should issue from the belfry tower, for Messrs. Gillett and Johnston, the Bell-founders of Croydon, have replaced the old method of haphazard tuning by one so scientific that every bell, even the smallest, is sent out perfect in tune.

On the same principle—known as Canon Simpson's—old bells which are cracked, or otherwise faulty in tune, can be recast and perfect harmony of tone produced.

For full particulars of numerous contracts successfully carried out, write to

**Gillett & Johnston,**

Founders of many famous bells,

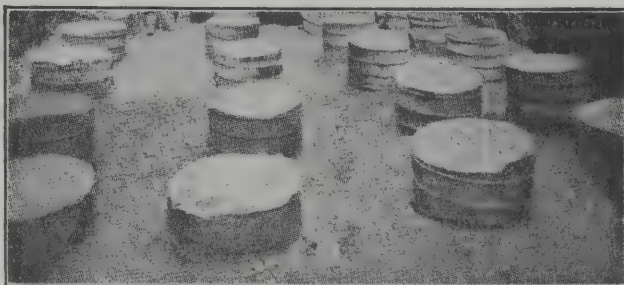
Established 1844.

Croydon.

## CONCRETE PILES

*A Form for every Pile.*

*A Pile for every Purpose.*



Group of completed Piles with their shells ready for the footings.

J. & W. STEWART put down slipways for vessels and foundations for machinery, and erect structures of all kinds in steel and/or re-inforced concrete.

J. & W. STEWART make a speciality of Foundation work and do all kinds of Concrete Piling, whether by their own Cast-in-Place system or the Raymond system (for which they are the sole Licensees in the United Kingdom) or the pre-cast moulded system.

*Write for Booklet.*

**J. & W. STEWART,**

*Re-inforced Concrete Specialists,*

**12 BERKELEY STREET, LONDON, W.1.**

Also at DUBLIN and BELFAST.

Telephone: Mayfair 306-9.

Telegrams: "Cymplecks," Piccy, London."

## Bell's Poilite

A "Poilite" roof weighs 50% less than a roof of natural slates.

A "Poilite" roof is extremely strong, durable, fire-resisting, weatherproof and yet weighs 50% less than a roof of Welsh natural slates. In these days of high transport costs this is a factor of great importance. A proportionately lighter understructure is also rendered possible by the use of "Poilite" tiles, thus promoting economy in building construction.

Bell's "Poilite" Standard Tiles are the result of many years practical experience in adapting Asbestos Fibre combined with the Best London Portland Cement to the needs of the Building World.

**BELL'S UNITED ASBESTOS Co. Ltd.,**

Pioneers of the World's Asbestos Industry.

Est. 1871.

B969 SOUTHWARK STREET

LONDON. S.E. 1.





## Health Ministry's Housing Report.

NEW housing schemes submitted to the Ministry during the fortnight ended December 31 numbered forty-nine, bringing the total number of schemes submitted to 11,441. The schemes approved now number 11,062, and comprise about 57,611 acres.

Fifty-nine lay-out schemes were submitted and forty-nine were approved during the fortnight, bringing the total number of lay-outs submitted to 7,005, and number approved to 6,423.

House plans representing 1,881 houses were submitted and plans for 1,669 houses approved. The total number of houses represented in all plans now submitted is 284,480, and in the plans approved 268,002.

During the fortnight tenders were submitted for 3,088 houses. Tenders for 2,538 were approved, bringing the total number of houses in tenders submitted to 182,873, and in tenders approved to 169,235. Contracts have been signed for 137,857 houses.

## Fire Risks.

H.M. THE KING has appointed a Royal Commission to inquire into the existing provision for:

(1) The avoidance of loss from fire, including the regulations dealing with the constructions of buildings, dangerous processes, and fire risks generally; (2) the extinction of outbreaks of fire, including the control and maintenance of fire brigades in Great Britain, and to report what changes are necessary, in order to secure the best possible protection of life and property against risks from fire. The Commission will be composed as follows: Sir Percival Maitland Laurence (Chairman); Mr. J. T. Burns, Secretary and late President of the Professional Fire Brigades' Association; Sir Vincent Henry Penalver Caillard, director of Messrs. Vickers, Ltd.; Mr. Arthur Lewis Dixon, Assistant Secretary, Home Office; Sir Maurice Fitzmaurice, consulting engineer, formerly chief engineer to the London County Council; Captain Vivian Leonard Henderson, M.C., M.P.; Sir Joseph Ernest Petavel, Director of National Physical Laboratory; Mr. Hedley Peters, President of the National Fire Brigades' Association; Lieutenant-Commander Sir Sampson Sladen, R.N., formerly chief officer of the London Fire Brigade; Mr. Henry Stilgoe, M.I.C.E., chief engineer Metropolitan Water Board; and Lieutenant-Colonel Guy Symonds, D.S.O. In addition there will be representatives of the County Councils Association, the Association of Municipal Corporations, and of the Fire Offices Committee.

[We hope that nothing will be done to stiffen the provisions against fire in the London area, as they are already both complete and onerous.]

## Housing News.

The Malling Rural Council have passed plans for ten cottages proposed to be erected in Aylesford Road, Aylesford, for Messrs. A. E. Reed & Co., Ltd.

It was decided by the Southwick Urban District Council, last week, to borrow £130,000 for the erection of 168 houses. It was stated that there was only one bricklayer engaged in the construction of the houses.

The Newcastle Housing Committee last week signed contracts for the erection of 265 houses at Walker, fifty of which are to be of concrete. At the same meeting it was stated that the lay-out scheme of the Pendower estate was progressing very favourably.

Messrs. Harland & Wolff, Ltd., having agreed to carry out certain proposed buildings with other material than brick, have offered their stock of bricks, amounting to 120,000, to the Corporation of Glasgow at 110s. per 1,000. The Corporation Housing Committee have accepted the offer.

The Gretton Rural District Council have accepted the tender of Mr. H. J. Clarke (Lyddington) for forty houses

at Gretton, type "A" (parlour), at £1,768, and "B" at £1,677, per pair. With regard to Wakerley and Harringworth, it was agreed that the tenders were too high for acceptance.

The Romford Urban Council last week resolved to apply to the Ministry of Health for a further sum of £50,000 for housing purposes. It has been decided to proceed very cautiously with the scheme. The applications for the houses which the Council had already decided to erect have not come in very rapidly.

The West Bromwich Town Council have approved of the lay-out of the Charlemont site for housing purposes. The site is in the All Saints' district, and was compulsorily purchased by the Council in July 1919. The lay-out prepared by the architect will provide for the erection of 388 houses and 12 shops, a site for an institute, schools, and a recreation-ground. Work on the construction of roads may proceed at an early date, but it is not expected that the erection of houses will commence for about twelve months.

Kidderminster Town Council, on the 5th inst., accepted the tender of the Kidderminster Federation of Builders, Ltd., for the construction of forty-eight houses on the Aggboro site, facing Worcester Road—"B" type, No. 2, £1,942 per pair; "B" type, No. 3, £3,848 per block of four; and "A" type, No. 5, £1,752 per pair. The Kidderminster scheme provides for the erection of 160 houses on this site, but at the previous meeting—by a majority of one—the Council decided to defer the scheme and push on with the limited scheme of forty-eight houses as an instalment. The Federated Builders have now consented to erect the houses on the same terms as though the scheme for 160 houses were to be sanctioned.

At a meeting of Hales Owen Rural Council on the 5th inst. the Housing Committee presented a lengthy report dealing with the housing proposals at Hill and Cakemore, in which it was recommended that the Council assent to the Office of Works carrying out the scheme for the erection of 200 houses, and that application be made to the Ministry of Health for sanction to the borrowing of £200,000 for the purpose of defraying the cost of the scheme, £30,000 being included for the construction of roads and sewers. It was further recommended that the British Thomson-Houston Company be asked if they could see their way to give the field of land in the centre of the whole site, without charge to the Council, for a recreation-ground. The report was approved.

At Montgomeryshire Quarterly Sessions, at Welshpool, on the 6th inst., David Mason, building contractor at Llansantffraid, surrendered to bail and pleaded not guilty to a charge of obtaining divers sums totalling £180 from the Montgomery County Council by false pretences. For the prosecution it was said that Mason entered into building contracts under which he was to be reimbursed his expenses for wages and materials and to receive 10 per cent. profit on the estimated cost. Mason, it was alleged, claimed £87 for wages for fictitious workmen, and divers sums for other men, not actually paid to them. Mason, who was represented by Mr. Artemus Jones, K.C., said he never read the contract he signed. He believed he could charge a profit on workmen's wages, and understood from another building contractor that he should charge his own working time in an assumed name. He was found guilty and fined £150 and the costs of the prosecution.

At a meeting of the Halifax Town Council on the 5th inst. the Housing Committee reported that they had accepted tenders for the erection of 238 houses at Holmfield and Boothtown at £1,036 per house, the contracts to be subject to the rise or fall in wages and prices of materials. The Halifax and District Building Guild, whose estimates for the houses in question had been passed over by the Housing Committee, sent a deputation to lay certain facts before the Council. Mr. C. S. Hobson said that the Guild felt that in the present letting of tenders they had not received quite fair play. He was able to say that the Guild could build the houses at £100 less per house than the actual estimate put in, and they asked the Housing Committee to give them a fair chance. The Mayor, in replying to an amendment that the minutes should be referred back, said that in the accepted tenders there were figures worked to specifications which the Borough Engineer could watch and check, but the Guild figures could not be watched and checked. The amendment was eventually carried.



**DURESCO** WASHABLE WATER PAINT

*The FIRST in the Field. The FOREMOST ever since.*

FORTY Years' Experience has stamped

**DURESCO**

as being the PREMIER Water Paint

Sole Manufacturers: **The Silicate Paint Co. & Co. Ltd.**  
J. B. ORR & Co. Ltd.  
CHARLTON, LONDON, S.E.



*As permanent  
as the Pyramids.*



**THE LONDON ELECTRIC  
WIRE COMPANY and SMITHS  
LIMITED**

**The London Electric  
Wire Co. and Smiths  
LIMITED,**  
Playhouse Yard, Golden Lane,  
LONDON, E.C. 1

FOR

RUBBER INSULATED WIRES  
and CABLES  
ARMATURE and MAGNET  
WIRES and STRIPS

ENAMEL INSULATED WIRES  
HIGH RESISTANCE WIRES  
TELEPHONE CABLES, WIRES  
and CORDS

AERIAL CABLES  
FLEXIBLE LIGHTING CORDS  
BELL WIRES FUSE WIRES  
DYNAMO BRUSHES and ARC  
LAMP and BRUSH FLEXIBLES

Telephone: Clerkenwell 1388 & 9.  
Telegrams: "Electric, London."

**Frederick Smith & Co.**  
(Incorporated in the London  
Electric Wire Co. and Smiths  
Limited),  
Anaconda Works,  
SALFORD, MANCHESTER

FOR

HIGH CONDUCTIVITY  
COPPER WIRE and STRIP  
HARD DRAWN H.C. COPPER  
LINE WIRE and TROLLEY  
WIRE

SPECIAL NON-FOULING  
SECTIONS  
PHOSPHOR BRONZE SPRING  
WIRE

BRONZE TROLLEY WIRE  
Maximum Tensile Strain and  
Durability  
SILICIUM BRONZE WIRE

Telephone: Manchester Central 4640.  
Telegrams: "Anaconda, Manchester."

Contractors to H.M. Government and to all the leading  
Electric Light and Telephone Companies.

Price Lists and Special Quotations on application.

CODES: { A B C 5th Edition. BENTLEY'S, WESTERN UNION  
(Univ. and 5-Letter), and MARCONI.

**MODERN PLANT  
FOR DISPOSAL**

*Surplus Mechanical and Chemical  
Plant, the property of Nobel In-  
dustries, Limited, is available for  
disposal. The list includes Steam,  
Gas & Oil Engines; Locomotives,  
Boilers, Air Compressors, Fans &  
Heaters, Pumps, Shafting, Pulleys  
and Weighing Machines. Also  
Buildings of Steel, Wood & Brick*

Descriptive Pamphlets will be sent with  
**FULL PARTICULARS  
ON APPLICATION**  
*Write or Telephone—Victoria 4299*

**NOBEL INDUSTRIES LTD.**  
PLANT SALES DEPARTMENT  
5 Palace Street, LONDON, S.W. 1



# THE ARCHITECT

FOUNDED 1869.

Incorporating "The Contract Reporter," 1885.  
 "The Builder's Reporter and Engineering Times."  
 "The Building Trade," 1913.

FRIDAY, JANUARY 21, 1921.

Owing to the increasing demand for back numbers we are compelled to give the following notice:—  
 All numbers for the past twelve months 9d. each, previous to that date 1s. each.

## TENDERS, &c.

\* \* As great disappointment is frequently expressed at the non-appearance of Contracts Open, Tenders, &c., it is particularly requested that information of this description be forwarded to the Office, Imperial Buildings, Ludgate Circus, London, E.C., not later than 2 P.M. on Wednesdays.

## CONTRACTS OPEN.

ABERGAVENNY.—Jan. 29.—For erection of two houses in the Hamlet of Hardwick; four at Penpergwm; two at Bryngwyn, near Raglan; two at Llanellen, for the Abergavenny Rural District Council. The houses are to be built in pairs of two types, and builders may submit tenders for one or more pairs as desired. Messrs. Francis & Prichard, architects, 16 Monk Street, Abergavenny. Send application and £2 2s. deposit to Mr. A. J. Willcox clerk to the Housing Committee, Council Offices, Monk Street, Abergavenny.

AMLWCH.—Jan. 24.—For the erection of sixteen houses (in three blocks of four houses and two blocks of semi-detached) on the Burwen site, for the Amlwch Urban District Council. The Architect, 4 High Street, Menai Bridge, and Exchange Chambers, Holyhead.

AUDENSHAW.—Jan. 24.—For erection and completion of stone lych gate, at the main entrance to the churchyard of St. Stephen's, Audenshaw, for the War Memorial Committee. Deposit 5s. Mr. W. Brooks, 136 Trafalgar Street, Ashton-under-Lyne.

BRAY.—Jan. 26.—For erection of ten class A houses at Bray (Windsor Road) and six class A houses at Bray (Touchen End), for the Cookham Rural District Council. Mr. F. Woods, A.R.I.B.A., 86 High Street, Maidenhead.

BRIDLINGTON.—Jan. 25.—For alterations and additions to the police station at Bridlington, for the East Riding of Yorkshire County Council. Deposit £1 1s. The County architect, County Hall, Beverley.

CARDIFF.—Feb. 1.—For cementing, &c., at 15 Northcote Street, for the Guardians. Mr. A. J. Harris, Clerk, 11 Park Place, Cardiff.

CARMARTHEN.—Jan. 27.—For erection of the following houses, for the Carmarthen Rural District Council, viz.: Llanarthney Parish, fourteen houses near Gorslas and fourteen houses at Cefneithin; St. Clears Parish, eight houses near Brittanian Terrace; St. Ishmael Parish, two houses at Ferryside. Deposit £2 2s. Mr. D. Thomas, architect, Quay Street, Ammanford.

CARNARVON.—Jan. 31.—For erection of 100 houses at Caehampton, Carnarvon, for the Carnarvon Corporation. Deposit £2 2s. Contractors may tender for one or more blocks. Mr. R. Lloyd Jones, architect, 14 Market Street, Carnarvon.

CREWE.—Jan. 31.—For erection and completion of new handicraft building, &c., at the County Training College, Crewe, for the County Council. Deposit £1 1s. Mr. H. Beswick, F.R.I.B.A., county architect, Chester.

DAWLEY.—Jan. 29.—For erection of fifty houses at Dawley, for the Urban District Council. Send applications by January 29 to Messrs. Fleeming & Son, architects, Queen Square, Wolverhampton.

DISLEY.—Feb. 7.—For the following work in connection with their housing scheme, for the Disley Rural District Council:—(1) Erection of sixteen parlour houses and four non-parlour houses on land fronting Buxton Old Road; (2) road-making and sewerage. Deposit £2 2s. Messrs. Adshead, Topham, and Adshead, architects, 23 King Street, Manchester.

DUNCANSBY HEAD.—Feb. 28.—For the construction on Duncansby Head, Caithness, of a fog-signal and lighthouse station, consisting of a block of three dwelling-houses, engine-room and stores block, a small tower, &c., 1½ mile of Approach Road, and a store at John o' Groats, for the Commissioners of Northern Lighthouses. Tenders are invited in two forms, viz.: (1) On an ordinary measurement and rate basis, and (2) on the basis of (a) the contractor's estimate of the total cost of materials and labour; (b) fixed sums for profit and plant; and (c) a percentage of any saving which may be made on the contractor's accepted estimate (a). Deposit £2 2s. The Engineer to the Commissioners, Northern Lighthouse Office, 84 George Street, Edinburgh.

DUNDEE.—Jan. 24.—For excavator, mason, and brick works to be done in the erection of thirty-three blocks of houses in Taybank housing scheme, for the Town Council. Mr. J. Thomson, city architect, Municipal Offices, 91 Commercial Street, Dundee.

EPSOM.—Feb. 1.—For the extension of the Ministry of Pensions Training Centre, Woodcote Park, Epsom. Deposit £1 1s. The Director of Contracts, H.M. Office of Works, &c., Storey's Gate, Westminster, London, S.W. 1.

FAZAKERLEY.—Jan. 26.—For the construction of offices, shed, &c., at the Waggon Repair Shop, for the Lancashire and Yorkshire Railway Company. The Engineer's Office, Hunts Bank, Manchester.

GLASGOW.—Jan. 25.—For the following works required in connection with the proposed erection of building for sludge pressing plant at Shieldhall sewage works, viz.:—(1) brick, concrete, and steel works; (2) wright, glazier, &c. works; (3) plumber work; and (4) slater work, for the Corporation. The Office of Public Works, City Chambers, 64 Cochrane Street, Glasgow.

HARLECH.—Feb. 5.—For the erection of twenty-six houses at Harlech, and for the construction of roadway, footpaths, and sewers, &c., required in laying out the site, for the Deudraeth Rural District Council. Deposit £3 3s. Messrs. O. Morris Roberts & Son, architects, Bank Place, Portmadoc.

HASLINGDEN.—Jan. 31.—For the whole of the work required in erection and completion of the first six houses (parlour type) on the Helmsore site, for the Town Council. Deposit £1 1s. The Borough Surveyor, Municipal Offices, Haslingden, or Mr. A. Brocklehurst, architect, St. James' Chambers, Waterfoot.

HAYWARDS HEATH.—Feb. 17.—For erection of twenty houses (brick) at Eastern Road, for the Urban District Council. Contractors may tender for the whole of the houses or for blocks of six or eight houses. Deposit £2 2s. Mr. G. Plummer, A.M.I.C.E., surveyor, Council Offices, Haywards Heath.

HEDNESFORD.—Jan. 28.—For erection of fifty bungalows at Green Heath, for the Cannock Urban District Council. Deposit £1 1s. Mr. S. Harrison, architect, Council Offices, Cannock.

HOLLINGWORTH.—Feb. 22.—For erection of twelve or more houses, in pairs, on the Green Lane site, Hollingworth, in Chester. Also for the construction of a road and sewer in connection therewith, for the Hollingworth Urban District Council. Deposit £3 3s. Mr. G. H. Wilson, clerk, Norfolk Square, Glossop.

HOWDEN.—Feb. 4.—For the erection of six houses at Eastrington, four houses at Foggathorpe, four houses at Knedlington, for the Howden Rural District Council. Deposit £1 1s. Mr. S. Piper, architect, Market Place, Howden, Yorks.

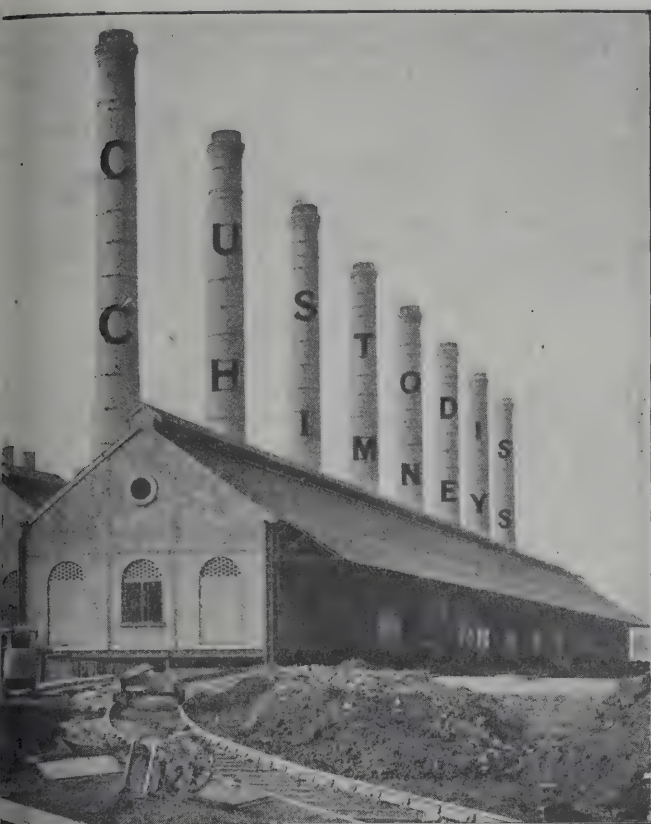
HULL.—Feb. 1.—For erection, on small holdings at Dunsell, of two farmhouses and buildings; also for ten or fourteen cottages on cottage holdings, to be provided for disabled ex-Service men, for the Corporation. Mr. F. W. Bricknell, city engineer, Guildhall, Hull.

ILMINSTER.—Feb. 9.—For the following works in connection with their housing scheme, for the Urban District Council, viz.:—The construction of sewers, drains, roads, and footpaths, and the erection of thirty houses on the Council's housing site on Lister's Hill. Deposit £1 1s. Mr. A. J. Pictor, A.R.I.B.A., Bruton, Somerset.

KINGSBURY.—Jan. 26.—For the erection and completion of fifty-six houses at the Kingsbury Road and Buck Lane housing scheme site near Kingsbury Green, N.W. 9. for the Kingsbury Urban District Council. Deposit £3 3s. Mr. R. C. N. Newport, surveyor, Council Offices, Kingsbury Road, The Hyde, N.W. 9.

KING'S LYNN.—Jan. 27.—For alterations and additions to the building of the Union Workhouse, for the purpose of providing additional infirmary accommodation, for the Guardians of King's Lynn Union. Mr. J. L. Carnell, architect, Paradise Chambers, King's Lynn.





EIGHT CHIMNEYS RECENTLY BUILT BY CUSTODIS, LTD.

Inquiries invited.

**CUSTODIS, LTD.,**

119 Victoria Street,  
WESTMINSTER, S.W.1.

TELEGRAMS—Custodomus Sowest.  
PHONE—779 Victoria.

## BEAUDEXOL

SUPER WATER PAINT  
IN 40 STANDARD SHADES

**PERMANENT  
WASHABLE**

**DURABLE  
SANITARY**

■ ■ ■ ■

BEAUDEXOL and its allied products will be exhibited on Stand 49, Row D, at the International Building Trades Exhibition, Olympia, London, April 12 to 26 inclusive.

■ ■ ■ ■

**BROWN & CRITCHLEY, LTD.,**  
LENZIE, SCOTLAND.

Telegrams: "Walpa, Lenzie."

Telephone: 51 Kirkintilloch.

LOW PRICES.

BEST WORK.



**THE BRILLIANT SIGN CO. Ltd.,**  
38 GRAY'S INN ROAD, LONDON.

18 Mount Street, Manchester.

25 Cookridge Street, Leeds.

## "PLASTERERS' HAIR"

RELIABLE AND ECONOMICAL.

Our Hairs are Stocked by over 600 Builders' Merchants.

The Associated Wool Mills & Hair Manufacturers,  
Tottenham, Ltd.,

Telephone:  
Tottenham 1694.

London, N. 17.



Platers' Shed at Large  
Shipbuilding Yard,  
coated with  
"Bitumastic" Solution.

## "BITUMASTIC"

Regd. Trade Mark.

Lengthens Life of Steel and Iron  
Structures by Preventing Rust.

It lasts longer, dries quicker, goes much further, and costs less than oil paints. Although hitherto obtainable in Black only; Red, Brown, and Green shades can now be supplied possessing the lasting qualities of the Black, with the additional advantage of permanent colour.

**WAILES DOVE BITUMASTIC LTD.,**

NEWCASTLE-ON-TYNE, London, Liverpool, Glasgow, Leeds,  
Manchester, Birmingham, Hull, Cardiff, Dublin, New York, etc.

Telegrams: "Bitumastic."

Telephones in Every Office.

**LESLIE.**—Jan. 31.—For the following works for the Town Council: (1) road, sewer, and water main works; (2) excavator and brick works; (3) carpenter and joiner work; (4) glazier work; (5) plumber work; (6) slater and rough-cast work; (7) plaster and cement work; (8) painter work; in connection with erection of ten semi-detached single-storey cottages at South Street, Leslie. Deposit £1 1s. each schedule. Mr. W. Hill Walker, architect, Church Square, St. Andrews.

**LONDON.**—Jan. 27.—For renovating the flooring of Mercy and Honour Wards at their infirmary at Raine Street, Old Gravel Lane, E. 1, for the Guardians of St. George-in-the-East. Mr. R. M. Lochner, clerk, Guardians' Offices, Raine Street, Old Gravel Lane, E. 1.

**LONDON.**—Feb. 14.—For erection of seventy-six concrete houses upon the "Fidler" system at their Brentfield Housing Estate, Harrow Road, Stonebridge, for the Willesden District Council. Mr. F. Wilkinson, A.M.I.C.E., engineer to the Council, Municipal Offices, Dyne Road, Kilburn.

**MARKET WEIGHTON.**—For the various trades in connection with the War Memorial Institute. Deposit £1 1s. Mr. H. P. Maxwell, M.S.A., architect and surveyor, Pocklington.

**NARBERTH.**—Feb. 5.—For erection of cottages at the undermentioned places in the county of Pembroke, for the Narberth Rural District Council, viz.:—Begelly: One pair "A" type (non-parlour); two pairs "B" type (parlour). East Williamston: Two pairs "A" type (non-parlour); two pairs "B" type (parlour). Narberth North: Three pairs "B" type (parlour). Robeston Wathen: One pair "A" type (non-parlour). St. Issells: Two pairs "A" type (non-parlour); three pairs "B" type (parlour). Contractors may tender for the whole or any one of the above contracts. Deposit £2 2s. Mr. H. Lewis, Clerk to the Council, Market Square, Narberth, or Mr. E. Glover Thomas, architect, Frogmore, Tenby.

**NEATH.**—For erection of houses upon each or the whole of the 367 houses to be erected upon the various sites situate at Penyrally, Neath Abbey, Bryncoch, Cadoxton, Cilfrew, Tonna, Cimla, Penrhiewtyn, Clyne, Resolven, Cwmgrwrach, Glynneath, Crynant, and Seven Sisters, for the Neath Rural District Council. Deposit £2 2s. for each site. Mr. D. M. Davies, M.I.M., and Cy. E., M.S.A., Council Offices, Neath.

**NOTTINGHAM.**—Jan. 26.—For taking down and erecting out-offices and playshed at Scotland Road Council School, for the Education Committee. Deposit £1. The City Architect's Office, Guildhall, Nottingham.

**NOTTINGHAM.**—Jan. 26.—For alterations in the Police Department at the Guildhall, for the Watch Committee. Deposit £1 1s. The City Architect's Office, Guildhall, Nottingham.

**OSSET.**—Jan. 29.—For erection of eighteen houses on the Horbury Road site, for the Corporation. Deposit £1 1s. Mr. H. Holmes, M.I.C.E.I., borough surveyor, Town Hall, Ossett.

**PENARTH.**—Jan. 24.—For proposed bakery for the Penarth Co-operative Society, Ltd. Send applications and £2 2s. deposit by January 24 to Mr. W. T. Springall, L.R.I.B.A., architect's department, Co-operative Wholesale Society, Ltd., St. Mary Street, Cardiff.

**PICKERING.**—Jan. 31.—For general building work necessary to convert the Old Mill, Potter Hill, Pickering, Yorks, into Council Offices and Public Hall, for the War Memorial Committee. Deposit £1 1s. The Council Offices, Eastgate, Pickering.

**ROCHESTER.**—Feb. 1.—For alterations and new lavatories at the Girls' Grammar School, Maidstone Road. Messrs. George E. Bond, architects, 384 High Street, Rochester.

**SOLIHULL.**—For erection of houses in various parts of the district, for the Solihull Rural District Council. Mr. A. E. Currall, surveyor to the Council, Streetsbrook Road, Solihull.

**STROUD.**—Feb. 8.—For the erection of forty-six houses in pairs on the Folly Lane site, for the Stroud Urban District Council. The roads, sewers and water mains have been laid, and the houses are on one site. Mr. A. Murray-Smith, architect, Town Hall, Stroud, Glos.

**SUDBURY.**—Feb. 1.—For alterations to certain buildings for the purpose of accommodating laundry machinery at the Workhouse, Sudbury, Suffolk, for the Guardians. Deposit £2 2s. Mr. R. W. Weekes, consulting engineer, Maxwell House, Arundel Street, W.C.

**TENBY.**—Jan. 26.—For the erection of fourteen houses, namely: Three pairs type B (parlour), two pairs, type A (non-parlour), one block of four, type A (non-parlour),

for the Tenby Town Council. Deposit £1 1s. Mr. B. Morley, borough surveyor, Fire Station, Tenby.

**WALSALL.**—Jan. 31.—For the construction of a pavilion in connection with the Tuberculosis Sanatorium, Pelsall Hall, for the Walsall Corporation. Mr. J. Taylor, M.I.C.E., borough engineer and surveyor, Council House, Walsall.

**WORKSOP.**—Jan. 22.—For erection of new male ward (40 beds) at the Victoria Hospital, Worksop, for the Worksop War Memorial Committee. Send application and £1 1s. deposit by January 22 to Messrs. Richardson and Lloyd, architects, Market Place, Worksop.

## TENDERS.

### BARMING.

For additions and alterations to "Cherry Tree" public-house, Barming, Kent. Messrs. Ruck & Smith, architects, Maidstone.

Cox Bros.	£3,250	0	0
Barden & Head	3,087	0	0
Elmore & Son	2,974	0	0
G. E. Wallis & Sons	2,750	0	0
R. CORBEN & SON (accepted)	2,700	0	0

### GLASGOW.

For the erection of Cadogan Street sub-station, for the Town Council.

#### Accepted tenders.

J. Emery & Sons (excavation and brick work)	£34,026	5	11
Gibbs & Canning (glazed earthenware work)	6,801	16	6
A. Jamieson & Son (joiner, &c., work)	3,341	17	0
Steel & Wilson (plumber work)	670	0	0
M'Donald & Marshall (painter work)	58	4	4

### HARROGATE.

For the erection of 110 houses, for the Town Council.

A. Hymas	£110,264	13	10
J. Allen & Son	109,706	8	4
Kershaw & Hill	108,232	5	0
Longden & Sons, Sheffield	104,136	0	0
Robt. McAlpine & Sons	96,269	15	9

### LONDON.

For the conversion of Lending Department to the Open Access System, at the Central Library, for the Camberwell Borough Council.

Hampton & Sons	£2,073	10	0
Wylie & Lochhead, Ltd.	1,940	0	0
Bennet Furnishing Co., Ltd.	1,731	16	0
LIBRACO, LTD., 62 Cannon Street, E.C.			
(recommended)	1,363	1	4

### MAIDSTONE.

For the erection of eight pairs of houses off Penenden Heath, for the Administrative Staff of the Kent County Council. Mr. W. H. Robinson, architect.

C. Walter	£21,903	0	0
R. Corben & Son	20,598	0	0
T. E. Wallis & Sons, Ltd.	19,900	0	0
Geo. Pearce & Sons	19,850	0	0
Barden & Head	19,780	0	0
J. Buck	19,720	0	0
Clarke & Epps	19,658	0	0
Norman Smith & Son	19,312	0	0
Martin & Newman	19,312	0	0
Cox Bros.	18,190	0	0

### NEWCASTLE-UPON-TYNE.

For the erection of two types of concrete houses on the Walker housing estate, in groups of twenty or more houses, for the Housing Committee.

#### Accepted tenders.

G. G. Carr, Worswick Street (81 houses)	£73,991	0	0
S. Miller, North Street, Saville Row (79 houses)	72,859	0	0
Braithwaite & Co., Back Whitefield Terrace, Heaton (19 houses)	17,449	0	0
A. Anderson, 212 Biddlestone Road (18 houses)	16,558	0	0
J. S. Hetherington, 470 Westgate Road (18 houses)	16,558	0	0

All of Newcastle.



# JAMES GIBBONS, LTD.

ST. JOHN'S WORKS WOLVERHAMPTON

## GIBBONS' "COTTAGE" WINDOW WITH PATENT SLIDING SASH

British Patents Nos. 12630/18; 123903/18 and 5535/19. Also patented in U.S.A., France, Belgium, Australia, New Zealand, Canada, India and South Africa.

Light in  
Construction  
and Fireproof.



Standard Sizes  
from  
Stock.

All outside surfaces easily cleaned from the inside of the rooms, the sliding portion hinged to open inwards and fitted with attachment for locking the casement when partly opened for ventilation.

The first  
Cottages in  
Great Britain  
completed  
under the  
Government  
Housing  
Scheme,  
showing  
Gibbons'  
"Cottage"  
Windows  
fixed.



These  
Cottages  
are also fitted  
throughout  
with Gibbons'  
Locks and  
Furniture.

FULL PARTICULARS ON APPLICATION.

London Office: 15 & 16 FISHER STREET, SOUTHAMPTON ROW, W.C.1.



# THE ARCHITECT

FOUNDED 1869.

Incorporating "The Contract Reporter," 1885.  
"The Builder's Reporter and Engineering Times."  
"The Building Trade," 1913.

FRIDAY, JANUARY 28, 1921.

Owing to the increasing demand for back numbers we are compelled to give the following notice:—

All numbers for the past twelve months 9d. each, previous to that date 1s. each.

## TENDERS, &c.

\* \* As great disappointment is frequently expressed at the non-appearance of Contracts Open, Tenders, &c., it is particularly requested that information of this description be forwarded to the Office, Imperial Buildings, Ludgate Circus, London, E.C., not later than 2 P.M. on Wednesdays.

## CONTRACTS OPEN.

ABERDEEN.—Feb. 2.—For mason and brick, carpenter, slater, plaster, plumber, painter, and electric-lighting works, also for supplying grates, &c., for proposed houses, as follows, for the Aberdeen District Committee: (1) Belhelvie, three blocks; (2) Blackburn, one block; (3) Bucksburn, four blocks; (4) Cults, three blocks; (5) Dyce, two blocks; (6) Newmachar, three blocks; (7) Oldmachar, two blocks; (8) Peterculter, three blocks. Mr. W. E. Gauld, F.R.I.B.A., architect, 11A Dee Street, Aberdeen.

ALMELEY.—March 1.—For the renovation of the mansion house, including additional electric fittings and sanitary work, conversion of existing buildings into a hospital for children, the construction of drains and sewage disposal works at the County Sanatorium, Almeley, three miles from Eardisley Station, for the Herefordshire County Council. Deposit £5 5s. Mr. G. H. Jack, M.I.C.E., F.S.A., county surveyor, High Town, Hereford.

BELFAST.—Feb. 9.—For erection of buildings in connection with the new Harbour Power Station, Belfast, for the Electricity Committee. Deposit £10 10s. Mr. S. C. Hunter, quantity surveyor, 2 Wellington Place, Belfast.

BIRKENSHAW.—Feb. 9.—For erection of houses (all trades) on the Council housing site, on Whitehall Road, for the Urban District Council. Mr. T. Grayshon, surveyor, Birkenshaw.

BURNTISLAND.—Feb. 5.—For erection of War Memorial, in form of a Celtic Cross, in granite, for the Town Council. Mr. W. Williamson, F.R.I.B.A., architect, Kirkcaldy.

CARDIFF.—Feb. 7.—For the following work at their Roath Power Station, for the Cardiff Corporation: Foundations and complete settings for two watertube boilers and fuel economiser. The City Electrical Engineer, The Hayes, Cardiff.

CHESTER.—Feb. 4.—For erection of additional buildings at Kingswood Sanatorium, Chester, for the Office of Works. Deposit £1 1s. The Superintendent at the Sanatorium, or the Director of Contracts, H.M. Office of Works, &c., Storey's Gate, Westminster, S.W. 1.

DENHOLME.—For the whole (or any of the separate trades) of the works required in erection of a block (or blocks) of four houses on the Denholme Clough site, for the Urban District Council. Mr. Whitaker, surveyor, the Council Offices, Denholme, or Messrs. T. A. Buttery & Son, architects and surveyors, Queen Street, Morley.

DISLEY.—Feb. 7.—For the following work in connection with their housing scheme, for the Disley Rural District Council:—(1) Erection of sixteen parlour houses and four non-parlour houses on land fronting Buxton Old Road; (2) road-making and sewerage. Deposit £2 2s. Messrs. Adshead, Topham, and Adshead, architects, 23 King Street, Manchester.

DUNCANSBY HEAD.—Feb. 28.—For the construction on Duncansby Head, Caithness, of a fog-signal and lighthouse station, consisting of a block of three dwelling-houses, engine-room and stores block, a small tower, &c.,  $\frac{1}{4}$  mile of Approach Road, and a store at John o' Groats, for the Commissioners of Northern Lighthouses. Tenders are invited in

two forms, viz.: (1) On an ordinary measurement and rate basis, and (2) on the basis of: (a) the contractor's estimate of the total cost of materials and labour; (b) fixed sums for profit and plant; and (c) a percentage of any saving which may be made on the contractor's accepted estimate (a). Deposit £2 2s. The Engineer to the Commissioners, Northern Lighthouse Office, 84 George Street, Edinburgh.

EASTBOURNE.—Jan. 31.—For erection of a public convenience near the pier on the eastern side and alterations to the existing convenience on the western side of the pier for the Pleasure Grounds Committee. Mr. L. Roseveare, M.I.C.E., borough engineer, Town Hall, Eastbourne.

EAST GRINSTEAD.—Feb. 21.—For erection of forty houses for the East Grinstead Rural Council. The houses will be built in pairs, and tenders may be submitted for cottages on any site or all sites. The following schedule shows the number of cottages proposed to be erected on each site: Six cottages on North Road site, Three Bridges, Worth; two cottages on Pound Hill site, Worth; two cottages on Copthorne Common site, Worth; four cottages on Boorers Arms site, Worth; four cottages on Crawley Down site, Worth; four cottages on West Hoathly Village site, West Hoathly; four cottages on Sharpthorne site, West Hoathly; two cottages on Birch Grove site, West Hoathly; two cottages on Goat Farm site, Forest Row; six cottages on Hartfield Road site, Forest Row; and four cottages on Colemans Hatch site, Hartfield. Deposit £1 1s. per site up to a maximum of £5 5s. Mr. G. Turton, architect to the Council, 36 High Street, East Grinstead.

GATESHEAD.—Feb. 8.—For extension of the Post Office and Telephone Exchange at Gateshead. Deposit £1 1s. H.M. Office of Works, 63 Westgate Road, Newcastle-on-Tyne, or Director of Contracts, H.M. Office of Works, London, S.W. 1.

GOLCAR.—For the various works required in additions to the stores at Townend, Golcar. Messrs. Lunn and Kaye, architects and surveyors, Milnsbridge.

GRIMSBY.—Feb. 9.—For erection of (a) corrugated iron shed at the night-soil depot, West Marsh, (b) garage for motor vehicles at the Household Scavenging Yard, Doughty Road, for the Cleansing Committee. Mr. H. G. Whyatt, M.I.C.E., borough engineer, Municipal Buildings, Grimsby.

GUILDFORD.—February 16.—For the erection of a new telephone repeater station at Guildford, Surrey. Deposit £1 1s. The head post office at Guildford, or the Director of Contracts, H.M. Office of Works, &c., Storey's Gate, Westminster, S.W. 1.

HARLECH.—Feb. 5.—For the erection of twenty-six houses at Harlech, and for the construction of roadway, footpaths, and sewers, &c., required in laying out the site, for the Deudraeth Rural District Council. Deposit £3 3s. Messrs. O. Morris Roberts & Son, architects, Bank Place, Portmadoc.

HOVE.—Feb. 11.—For erection of houses at Hove, Sussex, for the Commissioners of His Majesty's Works, &c. Deposit £1 1s. The Town Hall, Hove, or the Director of Contracts, H.M. Office of Works, &c., Storey's Gate, Westminster, S.W. 1.

HOWDEN.—Feb. 4.—For the erection of six houses at Eastrington, four houses at Foggathorpe, four houses at Knedlington, for the Howden Rural District Council. Deposit £1 1s. Mr. S. Piper, architect, Market Place, Howden, Yorks.

HULL.—Feb. 7.—For erection of twenty non-parlour and ten parlour houses (in blocks of six) and for fencing, water-mains, drainage, and footpaths, at Preston Estate, for the Sculcoates Rural District Council. Contractors may tender for the whole or part of the work, and the Council reserve to themselves the right to let the whole or any part of the work. Deposit £2. Mr. C. G. Wellsted, Waterloo Chambers, Hull.

ILMINSTER.—Feb. 9.—For the following works in connection with their housing scheme, for the Urban District Council, viz.:—The construction of sewers, drains, roads, and footpaths, and the erection of thirty houses on the Council's housing site on Lister's Hill. Deposit £1 1s. Mr. A. J. Pictor, A.R.I.B.A., Bruton, Somerset.

KENDAL.—Feb. 11.—For various trades in the erection and completion of forty-six houses at Castle Road, being the second part of a more extensive scheme, for the Town Council. Deposit £2 2s. Mr. F. W. Oxberry, borough engineer, Town Hall, Kendal.

KNARESBOROUGH.—Feb. 7.—For the erection and completion of ten houses at Pannal and twelve houses at Hampsthwaite (all trades), for the Rural District Council of Knaresborough. Tenders are also invited for the lay-out at Pannal (street and sewer). Messrs. W. Hill & Sons, architects, 38 Albion Street, Leeds.



SPECIFY

**THE MOST EFFICIENT**

# VAUGHAN'S PURE BITUMEN DAMP-PROOF COURSES

Made from Highest-Grade Materials.  
Extensively specified for Important  
Contracts, Housing Schemes, etc.

## ROOFING FELTS

**"REXOID"** SELF-FINISHED BITUMEN  
ROOFING.  
**"DUREX"** SMOOTH, FLEXIBLE FELT FOR  
ROOFING AND SARKING.  
**"DURITE"** SUPERIOR BITUMEN  
UNDERSLATING, Etc.

For Samples, etc., apply to Manufacturers:  
**H. R. VAUGHAN & CO. Ltd.,**  
Dept. A) Works: GATESHEAD-ON-TYNE.  
Preston, Lancs, and Bishop Auckland.

## MOTOR LORRIES

BUILDERS AND CONTRACTORS, DO YOUR OWN  
HAULAGE.

WE CAN SUPPLY YOUR WANTS.

EVERY DESCRIPTION OF MOTOR VEHICLE IN  
STOCK FOR IMMEDIATE DELIVERY.

LET US ADVISE AND SUPPLY YOU.

**DODD & CRUMPLIN,**  
29 GT. PULTENEY STREET,  
LONDON, W. 1.

Grams: "Dodd, Goldenhouse, London."

Phone: Gerrard 1316.

LOW PRICES.

BEST WORK.



**THE BRILLIANT SIGN CO. Ltd.,**  
38 GRAY'S INN ROAD, LONDON.

18 Mount Street, Manchester.

25 Cookridge Street, Leeds.

## "PICUS" PLYWOOD



LIGHT, STRONG,  
WATERPROOF  
EASILY WORKED.

Specially suitable for:  
PANELLING  
CEILINGS  
DOORS  
CUPBOARDS, Etc.

Prices and Samples of the Sole Agents

**C. LEARY & CO.**

LONDON: 85 Gracechurch Street, E.C. 3.  
LIVERPOOL: 27 Exchange Chambers, Bixteth St.  
NEWCASTLE-ON-TYNE: Consett Chmbs., Pilgrim St.  
also CANT & KEMP, 52 St. Enoch Sq., Glasgow.

## "BASECO" PATENT BOILER.

The finest Boiler made for Domestic Hot Water  
Supply and for Hot Water Heating with Radiators.

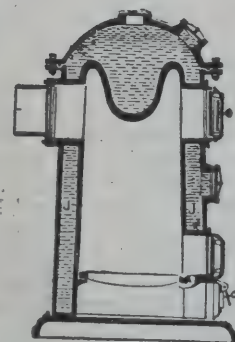
**ABSOLUTELY UNEQUALLED FOR EFFICIENCY  
AND ECONOMY.**

BURNS COAL, COKE, ANTHRACITE AND HOUSEHOLD REFUSE.

British Invention and Manufacture.

Through all Heating and Hot Water Engineers and Builders' Merchants.

Patentees: **O. BRUSTER & DE LAUNOIT**, 4 Lloyd's Avenue,  
Succrs. to **H. C. ROBOTOM & CO.** LONDON, E.C.3.



Section  
showing Water Pocket.



LONDON.—Feb. 14.—For erection of seventy-six concrete houses upon the "Fidler" system at their Brentfield Housing Estate, Harrow Road, Stonebridge, for the Willesden District Council. Mr. F. Wilkinson, A.M.I.C.E., engineer to the Council, Municipal Offices, Dyne Road, Kilburn.

LUTON.—Feb. 8.—For erection of a new Post Office and Telephone Exchange Deposit £1 1s. The Head Post Office, Luton, or the Director of Contracts, H.M. Office of Works, &c., Storey's Gate, Westminster, London, S.W. 1.

MALDON.—Feb. 22.—For erection and completion of houses in pairs in all or any of the following parishes, for the Maldon Rural District Council: Tolleshunt Major, six houses; Woodham Walter, eight; Purleigh (Village), twelve; Goldhanger, twenty; Purleigh (Round Bush), eight; Great Totham, ten; Latchingdon, twelve; Steeple, six; Stow Maries, six. Mr. W. Almond, surveyor, 6 Market Hill, Maldon.

NARBERTH.—Feb. 5.—For erection of cottages at the undermentioned places in the county of Pembroke, for the Narberth Rural District Council, viz.:—Begelly: One pair "A" type (non-parlour); two pairs "B" type (parlour). East Williamston: Two pairs "A" type (non-parlour); two pairs "B" type (parlour). Narberth North: Three pairs "B" type (parlour). Robeston Wathen: One pair "A" type (non-parlour). St. Issells: Two pairs "A" type (non-parlour); three pairs "B" type (parlour). Contractors may tender for the whole or any one of the above contracts Deposit £2 2s. Mr. H. Lewis, Clerk to the Council, Market Square, Narberth, or Mr. E. Glover Thomas, architect, Frogmore, Tenby.

NEWCASTLE-UPON-TYNE.—Feb. 4.—For erection of the whole or a portion of a further 154 houses on the Walker housing estate, comprising both brick and concrete types, for the Housing Committee. The Housing Architect, 18 Cloth Market, Newcastle.

NOTTINGHAM.—Feb. 2.—For erection of a new common room, at the School of Art, Waverley Street, for the Castle Museum and School of Art Committee. Deposit £1. The City Architect's Office, Guildhall, Nottingham.

ROCHESTER.—Feb. 1.—For alterations and new lavatories at the Girls' Grammar School, Maidstone Road. Messrs. George E. Bond, architects, 384 High Street, Rochester.

SELBY.—Feb. 2.—For repairs and adaptations to farm buildings at Newlands Hall Farm, Selby. The Architect to the Small Holdings Committee, County Hall, Wakefield.

SHEFFIELD.—Feb. 2.—For works of all trades required in the erection of filter house at Damflask, for the Water Committee. Mr. F. E. P. Edwards, city architect, Town Hall, Sheffield.

SOUTHEND-ON-SEA.—Feb. 14.—For supply and erection of piles, bracings, steelwork, and timber decking, for the Corporation. Deposit £2. Mr. R. H. Dyer, borough engineer, Municipal Buildings, Clarence Road, Southend-on-Sea.

SOUTH QUEENSFERRY.—Feb. 5.—For the brickwork and roadmaking, joiner, slater, plumber, plaster, glazier and painter work of thirty-two houses to be erected at Hopetoun Road site, for the Town Council. There will be two contracts for twenty and twelve houses respectively, and contractor may offer for either or both. Mr. W. M. Scott, architect, Linlithgow, or Mr. C. S. Paterson, burgh surveyor, South Queensferry.

STROUD.—Feb. 8.—For the erection of forty-six houses in pairs on the Folly Lane site, for the Stroud Urban District Council. The roads, sewers and water mains have been laid, and the houses are on one site. Mr. A. Murray-Smith, architect, Town Hall, Stroud, Glos.

SUDBURY.—Feb. 1.—For alterations to certain buildings for the purpose of accommodating laundry machinery at the Workhouse, Sudbury, Suffolk, for the Guardians. Deposit £2 2s. Mr. R. W. Weekes, consulting engineer, Maxwell House, Arundel Street, W.C.

SUDBURY.—Feb. 1.—For the complete construction of a 60-ft. brick chimney, with short length of connecting flue, at the Workhouse, Sudbury, Suffolk, for the Guardians. Deposit £2 2s. Mr. R. W. Weekes, consulting engineer, Maxwell House, Arundel Street, W.C.

TAVISTOCK.—Feb. 10.—For erection of houses for the Rural District Council on the following sites: Bere Alston, twenty-six houses in blocks of two and four; Buckland Monachorum Village, two blocks of two; Bere Ferrers, three blocks of two. Mr. T. H. Harris, Council's architect, Tavistock.

THORPE.—For erection of eight cottages at Thorpe, near Staines, for the Chertsey Rural District Council. Deposit £1 1s. Messrs. Kenneth Wood, A.R.I.B.A., and J. Sarvis, L.R.I.B.A., Old Bank Chambers, Woking, Surrey.

WEST DIDSBURY.—Feb. 4.—For laying surfaces of hospital corridor floors, &c. at the Withington Institution, West Didsbury, for the Guardians of Manchester Union. Mr. J. Rhodes, Clerk of Works, the Withington Institution.

WILLESBOROUGH.—Feb. 5.—For the erection of one cottage and small set of farm buildings on Sprotlands Estate Willesborough, for the Small Holdings Sub-Committee of the Kent Agricultural Committee. Mr. A. Barker, county land agent, 27 High Street, Maidstone.

WORKSOP.—Jan. 31.—For the erection of the second instalment of 116 houses on the Retford Road site, for the Urban District Council. There are eight types of houses, and tenders may be submitted for one or more types or for the whole or part of the contract. Send application and £5 deposit by January 31 to Mr. B. D. Thompson, architect, 73 Bridge Street, Worksop.

## TENDERS.

### CLOWNE.

For the erection of houses, for the Rural District Council.

*Provisionally accepted tenders.*

Clowne, forty-two houses, Billborough,	
Reed & Blake, Sheffield	£36,424 0 0
Whitwell, thirty-six houses, M. McCarrick	
Worksop	31,912 2 6
Barlboro', thirty-two houses, T. Roper	
& Sons, Sheffield	29,590 8 0

### CRICCIETH.

For the erection of twenty-four houses, for the Urban District Council.

John Humphreys	£31,875 14 5
J. T. Jones	31,472 0 0
J. R. Humphreys, Fairview, Criccieth	25,700 18 9

For the erection of one block of two houses of the four bedroom type.

J. Humphreys	£2,757 3 3
J. T. Jones	2,440 0 0
J. E. Williams	2,372 11 6
J. R. Humphreys	2,152 11 0

### LONDON.

For the extension of the Finchley Cottage Hospital (1st section).

Day	£24,200 0 0
Jarvis	23,860 0 0
Mattock Bros.	22,937 0 0
Sharpe Bros.	22,450 0 0
Mattock and Parsons	22,333 0 0
C. W. Scott (accepted)	21,950 0 0

### STEVENAGE.

For the erection of twelve houses in Walkern Road and eight houses in Haycroft Lane, for the Stevenage Urban District Council.

Harpenden Building Co., Harpenden	£23,369 0 0
W. Austin & Sons	22,178 0 0
Shrouder & Matthews	21,407 0 0
Porter & Little	21,235 0 0
J. Willmott & Sons	20,331 0 0
H. Meckhonik	20,028 0 0
H. LACEY & SONS, Luton (accepted)	17,960 0 0

### WATFORD.

For alterations and additions to "Lady's Close," Watford, to adapt it for the purpose of a school, for the Governors of Watford Grammar Schools. Mr. S. Dawe, A.R.I.B.A., Rickmansworth.

A. J. Eldridge	£8,797 11 9
Charman & Son	8,173 0 0
Harpenden Building Co., Ltd.	7,885 0 0
Blow & Peters	7,819 0 0
Clifford & Gough	7,779 0 0
Payne Bros.	7,583 0 0
G. and J. Waterman	7,478 0 0
Townsend & Pearson, Ltd.	7,398 0 0
Welshman & Wise	7,350 0 0
J. Darvell & Son	7,329 0 0
G. Wiggs & Sons	7,210 0 0
C. Brightman & Son	7,142 0 0
D. and E. Eames	7,137 0 0
W. King & Sons	7,025 0 0
CLARK BROS., Watford (provisionally accepted)	6,809 8 6





# THE LONDON ELECTRIC WIRE COMPANY and SMITHS LIMITED

**The London Electric  
Wire Co. and Smiths  
LIMITED.**

**Playhouse Yard, Golden Lane,  
LONDON, E.C. 1**

**RUBBER INSULATED WIRES  
and CABLES  
ARMATURE and MAGNET  
WIRES and STRIPS**

ENAMEL INSULATED WIRES  
HIGH RESISTANCE WIRES  
TELEPHONE CABLES, WIRES  
and CORDS

**AERIAL CABLES**  
**FLEXIBLE LIGHTING CORDS**  
**BELL WIRES FUSE WIRES**  
**DYNAMO BRUSHES and ARC**  
**LAMP and BRUSH FLEXIBLES**

Telephone : Clerkenwell 1388 & 9.  
Telegrams : "Electric, London."

**Frederick Smith & Co.**  
(Incorporated in the London  
Electric Wire Co. and Smiths  
Limited).

**Anaconda Works,  
SALFORD, MANCHESTER**

FOR  
HIGH CONDUCTIVITY  
COPPER WIRE and STRIP  
HARD DRAWN H.C. COPPER  
LINE WIRE and TROLLEY  
WIRE

WIRE  
SPECIAL NON-FOULING  
SECTIONS  
PHOSPHOR BRONZE SPRING  
WIRE

**BRONZE TROLLEY WIRE**  
Maximum Tensile Strain and  
Durability  
**SILICIUM BRONZE WIRE**

Telephone: Manchester Central 4640.  
Telegrams: "Anaconda, Manchester."

Contractors to H.M. Government and to all the leading  
Electric Light and Telephone Companies.

*Price Lists and Special Quotations on application.*

**CODES :** { A B C 5th Edition. BENTLEY'S, WESTERN UNION  
(Univ. and 5-Letter), and MARCONI.

# PLYWOOD

MANUFACTURED IN ENGLAND.

FIGURED AND PLAIN  
OAK, MAHOGANY, PLAIN  
MAPLE, SATIN WALNUT,  
ASH, &c., FOR PANELLING,  
JOINERY, &c.

## IMPORTED PLYWOOD IN

ALDER, BIRCH, PINE,  
LIME, GUM, ASPEN, FOR  
DOORS, JOINERY, CEIL-  
INGS, WALLS, &c.

**Y. GOLDBERG & SONS, LTD.,**  
7 KINGSLAND ROAD, SHOREDITCH, E.2.

Factory :  
AERO PLYWOOD WORKS,  
LAWRENCE ROAD,  
TOTTENHAM, N.15.

Tele : L.W. 7090.  
Tele. Address :  
YEGOLPLY, PHONE,  
LONDON.

**DURESCO** *WASHABLE* **PAINT WATER**

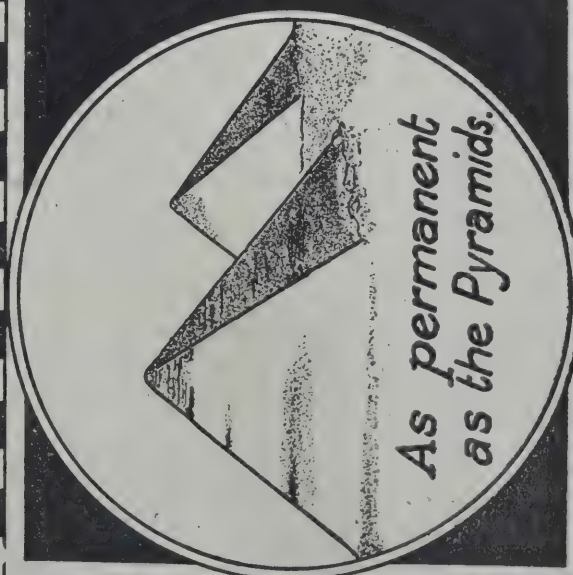
*The FIRST in the Field. The FOREMOST ever since.*

FORTY Years' Experience has stamped

DURESCO

as being the PREMIER Water Paint

**Sole  
Manufacturers :**  
**The Silicate Paint Co.**  
**CHARLTON, LONDON, S.E.**  
**J. B. Orr  
& Co. Ltd.**





# THE ARCHITECT

FOUNDED 1869.

Incorporating "The Contract Reporter," 1885.  
 "The Builder's Reporter and Engineering Times."  
 "The Building Trade," 1913.

FRIDAY, FEBRUARY 4, 1921.

*Owing to the increasing demand for back numbers we are compelled to give the following notice:—*

*All numbers for the past twelve months 9d. each, previous to that date 1s. each.*

## TENDERS, &c.

As great disappointment is frequently expressed at the non-appearance of Contracts Open, Tenders, &c., it is particularly requested that information of this description be forwarded to the Office, Imperial Buildings, Ludgate Circus, London, E.C., not later than 2 P.M. on Wednesdays.

## CONTRACTS OPEN.

**ALMELEY.**—March 1.—For the renovation of the mansion house, including additional electric fittings and sanitary work, conversion of existing buildings into a hospital for children, the construction of drains and sewage disposal works at the County Sanatorium, Almeley, three miles from Eardisley Station, for the Herefordshire County Council. Deposit £5 5s. Mr. G. H. Jack, M.I.C.E., F.S.A., county surveyor, High Town, Hereford.

**ANERLEY.**—Feb. 15.—For erection and completion of fourteen type "A" houses at the Chesham Park housing site, Anerley, S.E. 20, for the Penge Urban District Council. The Clerk to the Council, Town Hall, Anerley, S.E. 20.

**BELFAST.**—Feb. 9.—For erection of buildings in connection with the new Harbour Power Station, Belfast, for the Electricity Committee. Deposit £10 10s. Mr. S. C. Hunter, quantity surveyor, 2 Wellington Place, Belfast.

**BIRKENHEAD.**—Feb. 12.—For erection of electric substations at Beaufort Road and Marshall Street, for the Corporation. Mr. C. Brownridge, borough engineer and surveyor, Town Hall, Birkenhead.

**BIRKENSHAW.**—Feb. 9.—For erection of houses (all trades) on the Council housing site, on Whitehall Road, for the Urban District Council. Mr. T. Grayshon, surveyor, Birkenshaw.

**BRADFORD.**—Feb. 9.—For steel work required in connection with the extensions, Bolton Road Electricity Works, for the Corporation. The City Architect, Town Hall, Bradford.

**BRADFORD.**—Feb. 9.—For the various works required to be done in alterations to No. 1 Mannville Terrace, for the Corporation. The City Architect, Town Hall, Bradford.

**BRIDLINGTON.**—Feb. 9.—For the extension of the glass dome on the New Spa and alterations thereto, for the Town Council. Lieut.-Colonel C. G. Bradley, A.M.I.C.E., borough engineer, 1 The Crescent, Bridlington.

**BURY, LANCS.**—Feb. 14.—For re-building the Holy Trinity School, Bury. (a) General contract, (b) plumbing, painting, and glazing. Send applications by February 14 to Messrs. Biram & Fletcher, architects, 17 George Street, St. Helens.

**CUBBINGTON.**—Feb. 18.—For erection of houses for the working classes in the parishes of Cubbington, for the Warwick Rural District Council. Send application and £1 1s. deposit by February 9 to Mr. Hughes Trepass, architect, 1 Church Street, Warwick.

**DONCASTER.**—Feb. 17.—For the foundations and other constructional work required in connection with the installation of new generating plant at the electricity works, Grey Friars' Road, for the Corporation. Messrs. Walker & Thompson, architects, Oriel Chambers, Baxter Gate, Doncaster.

**DUNCANSBY HEAD.**—Feb. 28.—For the construction on Duncansby Head, Caithness, of a fog-signal and lighthouse station, consisting of a block of three dwelling-houses, engine-room and stores block, a small tower, &c., 1½ mile of Approach Road, and a store at John o' Groats, for the Commissioners of Northern Lighthouses. Tenders are invited in

two forms, viz.: (1) On an ordinary measurement and rate basis, and (2) on the basis of (a) the contractor's estimate of the total cost of materials and labour; (b) fixed sums for profit and plant; and (c) a percentage of any saving which may be made on the contractor's accepted estimate (a). Deposit £2 2s. The Engineer to the Commissioners, Northern Lighthouse Office, 84 George Street, Edinburgh.

**EAST GRINSTEAD.**—Feb. 21.—For erection of forty houses for the East Grinstead Rural Council. The houses will be built in pairs, and tenders may be submitted for cottages on any site or all sites. The following schedule shows the number of cottages proposed to be erected on each site: Six cottages on North Road site, Three Bridges, Worth; two cottages on Pound Hill site, Worth; two cottages on Copthorne Common site, Worth; four cottages on Boorers Arms site, Worth; four cottages on Crawley Down site, Worth; four cottages on West Hoathly Village site, West Hoathly; four cottages on Sharpthorne site, West Hoathly; two cottages on Birch Grove site, West Hoathly; two cottages on Goat Farm site, Forest Row; six cottages on Hartfield Road site, Forest Row; and four cottages on Colemans Hatch site, Hartfield. Deposit £1 1s. per site up to a maximum of £5 5s. Mr. G. Turton, architect to the Council, 36 High Street, East Grinstead.

**GLASGOW.**—Feb. 14.—For the following works required in connection with the proposed erection of a sub-station at Great Wellington Street, Kinning Park, for the Corporation, viz.:—(1) Digger, brick, mason, and reinforced concrete works; (2) carpenter, joiner, &c., works; (3) plumber work. The Electrical Engineer, 75 Waterloo Street, Glasgow.

**GLASGOW.**—Feb. 16.—For the patent roof glazing in connection with the extension of the municipal buildings, for the Corporation. Deposit £5. Messrs. Watson, Salmond and Gray, architects, 242 West George Street, Glasgow, and Mr. J. Lindsay, town clerk, City Chambers, Glasgow.

**GRIMSBY.**—Feb. 9.—For erection of (a) corrugated iron shed at the night-soil depot, West Marsh, (b) garage for motor vehicles at the Household Scavenging Yard, Doughty Road, for the Cleansing Committee. Mr. H. G. Whyatt, M.I.C.E., borough engineer, Municipal Buildings, Grimsby.

**GUILDFORD.**—February 16.—For the erection of a new telephone repeater station at Guildford, Surrey. Deposit £1 1s. The head post office at Guildford, or the Director of Contracts, H.M. Office of Works, &c., Storey's Gate, Westminster, S.W. 1.

**HALIFAX.**—Feb. 19.—For erection of forty houses at Wakefield Road (scullery type, "H"), under the following trades, for the Housing Committee:—Excavation, mason and bricklayer, carpenter and joiner, slater and plasterer, plumber and glazier, painter and decorator. Deposit £2 2s. Mr. J. Lord, M.I.C.E., borough engineer, Halifax.

**HAYWARDS HEATH.**—Feb. 17.—For erection of twenty houses (brick) at Eastern Road, for the Urban District Council. Contractors may tender for the whole of the houses or for blocks of six or eight houses. Deposit £2 2s. Mr. G. Plummer, A.M.I.C.E., surveyor, Council Offices, Haywards Heath.

**HOLLINGWORTH.**—Feb. 22.—For erection of twelve or more houses, in pairs, on the Green Lane site, Hollingworth, in Chester. Also for the construction of a road and sewer in connection therewith, for the Hollingworth Urban District Council. Deposit £3 3s. Mr. G. H. Wilson, clerk, Norfolk Square, Glossop.

**HOVE.**—Feb. 11.—For erection of houses at Hove, Sussex, for the Commissioners of His Majesty's Works, &c. Deposit £1 1s. The Town Hall, Hove, or the Director of Contracts, H.M. Office of Works, &c., Storey's Gate, Westminster, S.W. 1.

**ILMINSTER.**—Feb. 9.—For the following works in connection with their housing scheme, for the Urban District Council, viz.:—The construction of sewers, drains, roads, and footpaths, and the erection of thirty houses on the Council's housing site on Lister's Hill. Deposit £1 1s. Mr. A. J. Pictor, A.R.I.B.A., Bruton, Somerset.

**KENDAL.**—Feb. 11.—For various trades in the erection and completion of forty-six houses at Castle Road, being the second part of a more extensive scheme, for the Town Council. Deposit £2 2s. Mr. F. W. Oxberry, borough engineer, Town Hall, Kendal.

**KILBARCHAN.**—Feb. 11.—For the excavator, and brick, joiner, slater, plumber, plaster and painter works, and for the drains, fences, footpaths, &c., in connection with the erection of fifteen blocks of cottages about to be erected at Kilbarchan. Mr. W. McClure, district clerk, Mansion House, Greenock. Mr. A. Robertson, architect, County Buildings, Paisley.





EIGHT CHIMNEYS RECENTLY BUILT BY CUSTODIS, LTD.

Inquiries invited.

CUSTODIS, LTD.,  
119 Victoria Street,  
WESTMINSTER, S.W.1.

TELEGRAMS—Custodomus Sowest.  
PHONE—779 Victoria.

VENUS

17 degrees  
Blacklead  
6B (Softest)  
to  
9H (Hardest)

For  
Architects  
& Builders

Of all Stationers &  
Drawing Office Suppliers

6d. each, 5/8 per dozen.

PENCILS

VENUS" Lower Clapton Road E.5.

LOW PRICES. BEST WORK.

THE BRILLIANT SIGN CO. Ltd.,  
38 GRAY'S INN ROAD, LONDON.  
18 Mount Street, Manchester. 25 Cookridge Street, Leeds.

Bedford Lemere & Co.

Architectural and Technical  
PHOTOGRAPHERS,

147 Strand, London, W.C. (FIRST FLOOR)

PHOTOGRAPHS TAKEN & PROOFS DELIVERED  
SAME DAY. PRICE LISTS & ESTIMATES FREE.

ESTABLISHED 1862. TELEPHONE 4258 CENTRAL

BEAUDEXOL

SUPER WATER PAINT  
IN 40 STANDARD SHADES

PERMANENT WASHABLE DURABLE SANITARY

■ ■ ■ ■

BEAUDEXOL and its allied products will be exhibited on Stand 49, Row D, at the International Building Trades Exhibition, Olympia, London, April 12 to 26 inclusive.

■ ■ ■ ■

BROWN & CRITCHLEY, LTD.,  
LENZIE, SCOTLAND.

Telegrams: "Walpa, Lenzie." Telephone: 51 Kirkintilloch.



LLANELLYD.—For building a schoolmaster's house at Llanelltyd, near Dolgelley, for the Merioneth Education Committee. Messrs. Deakin & Howard-Jones, M.S.A., county architects, Plas Ynys, Borth, S.O., Cardiganshire.

LONDON.—Feb. 10.—For taking out the foundations, &c., to four existing boilers, and for forming the foundations, and setting two new boilers, at their Institution at Bancroft Road, Mile End Road, E. 1, for the Guardians of Mile End Old Town. Send application and £2 deposit by February 7 to Mr. Edmund J. Harrison, L.R.I.B.A., architect, 23 Berkeley Road, Crouch End, N. 8.

LONDON.—Feb. 14.—For erection of seventy-six concrete houses upon the "Fidler" system at their Brentfield Housing Estate, Harrow Road, Stonebridge, for the Willesden District Council. Mr. F. Wilkinson, A.M.I.C.E., engineer to the Council, Municipal Offices, Dyne Road, Kilburn.

LONDON.—Feb. 15.—For erection of six cottages at Lavender Hill, Enfield, for the Guardians of Edmonton Union. Mr. J. C. S. Mummery, architect, 34 Bloomsbury Square, W.C.

LONDON.—Feb. 19.—For certain alterations and additions to the boiler-house yard, Warkworth House, Isleworth, for the Guardians of Brentford Union. Mr. F. E. Harmsworth, clerk, Union Offices, Isleworth, Middlesex.

LONDON.—March 9.—For building works, being an extension of the electricity power-house at Millfields Road, for the Hackney Borough Council. Deposit £5 5s. The Borough Electrical Engineer, 306 Mare Street, Hackney, E. 8.

LOUGHTON.—Feb. 8.—For erection of the remaining portion of their scheme, amounting to thirty-four houses in three types, for the Loughton Urban District Council. Mr. Horace White, F.R.I.B.A., High Road, Loughton. Send application and £1 1s. deposit by Feb. 8 to Mr. J. W. Faulkner, clerk, Council Offices, Loughton, Essex.

MACDUFF.—Feb. 8.—For the following works required in erecting eight blocks type "E," semi-detached cottages at Duff Street site:—Brick and cast concrete, carpenter, slater, plaster, plumber, and painter works, for the Town Council. Mr. J. J. George, town clerk, Macduff, or Messrs. George Sutherland & Clement George, architects, Aberdeen.

MANCHESTER.—Feb. 9.—For the erection of additional firemen's quarters at the chief fire station, for the Watch Committee. Deposit £1 1s. The City Architect, Town Hall, Manchester.

MANCHESTER.—Feb. 10.—For renewal of conservatory roof and alterations to Dynamo House, Heaton Hall, for the Parks Committee. Deposit £1 1s. The City Architect, Town Hall, Manchester.

METHLEY.—Feb. 19.—For erection and completion of fifty-eight dwelling-houses in connection with the Mickle-town housing scheme, for the Methley Urban District Council. Mr. T. Thompson, surveyor, Red House, Methley.

MIDLOTHIAN.—For the following works: mason and brickwork, carpenter and joiner work, glazier work, plumber work, slater work and roughcasting, plaster and cement works, and painter's work in connection with the erection of two roadmen's houses at Hardengreen, Eskbank, two at Phillip's Siding, Bonnyrigg, two at Burnhead, Bonnyrigg; two at Seafeld, Roslin, one caretaker's house at Loanhead Hospital, for the Midlothian County Council. Apply forthwith to Mr. A. G. G. Asher, W.S., county clerk, County Rooms, Edinburgh.

MORLEY.—Feb. 19.—For the whole (or any portion) of the works required in erection of a woollen mill at Morley (tall chimney-stack to be a separate contract), for Mr. S. C. Johnson. Mr. T. A. Buttery, L.R.I.B.A., architect and surveyor, Queen Street, Morley.

NOTTINGHAM.—Feb. 9.—For alterations to central fire-station, Guildhall, and for lavatory accommodation at the police institute, Guildhall Yard, for the Corporation. Deposit £1. The City Architect's Office, Guildhall, Nottingham.

SOUTHEND-ON-SEA.—Feb. 14.—For supply and erection of piles, bracings, steelwork, and timber decking, for the Corporation. Deposit £2. Mr. R. H. Dyer, borough engineer, Municipal Buildings, Clarence Road, Southend-on-Sea.

STROUD.—Feb. 8.—For the erection of forty-six houses in pairs on the Folly Lane site, for the Stroud Urban District Council. The roads, sewers and water mains have been laid, and the houses are on one site. Mr. A. Murray-Smith, architect, Town Hall, Stroud, Glos.

TAVISTOCK.—Feb. 10.—For erection of houses for the Rural District Council on the following sites: Bere Alston, twenty-six houses in blocks of two and four; Buckland Monachorum Village, two blocks of two; Bere Ferrers, three blocks of two. Mr. T. H. Harris, Council's architect, Tavistock.

WALLASEY.—Feb. 8.—For erection and completion of a left-luggage office, &c. (wood structure), at New Brighton, for the Corporation. Mr. W. H. Travers, M.Inst.C.E., borough engineer and surveyor, Town Hall, Wallasey.

## TENDERS.

### EASTHAMPTSTEAD.

For the erection of houses on the Sandhurst site, for the Rural District Council. Messrs. Perkins and Brocklehurst, architects, 32 Theobald's Road, London, W.C. 1.	
Norris & Co.	£18,010 0 0
Wheeler Bros.	17,888 0 0
Geo. Taylor	17,759 0 0
Purnell & Clifford	17,214 0 0
E. C. Hughes	16,772 2 0
Charman	16,708 0 0
SPEAR & KING, Crowthorne (accepted)	16,546 0 0

### FYFIELD.

For alterations and additions to the Fyfield Industrial School, near Ongar, Essex, for the West Ham Education Committee. Mr. J. H. Jacques, L.R.I.B.A., architect, 2 Fen Court, Fenchurch Street, E.C. 3.	
E. A. Russell	£49,152 0 0
G. E. Everitt & Sons	48,974 0 0
A. E. Symes	48,777 0 0
H. C. Horswill	48,528 0 0
J. Whiffin & Sons	45,395 18 2
R. Woollaston & Co.	40,987 15 0

### KIRKWALL.

For the various works in connection with the erection of twenty-two blocks, consisting of forty-four four-apartment houses at Carter's Park, for the Town Council. Mr. T. S. Pearce, Junction Road, Kirkwall, architect.

Accepted tenders:—

J. Firth, Victoria Street, Kirkwall (mason)	£21,255 6 0
W. B. Peace & Son and S. Buckie & Son, Ltd., Junction Road, Kirkwall (joiner)	20,758 10 3
Rendall & Wylie and J. Johnston, Ayre Road, Albert Street, Kirkwall, (plumber)	8,014 12 2
J. Firth (slater)	5,949 1 6
A. Lawrence, Stromness (plasterer)	4,690 2 6
G. Bain, Broad Street, Kirkwall (painter)	1,524 1 5

### LONDON.

For the execution of the decorative plaster work in the Council Chamber of the new County Hall, for the London County Council.

Bromsgrove Guild	£11,800 0 0
H. H. Martyn & Co., Ltd.	8,127 0 0
G. Jackson & Sons, Ltd.	7,422 0 0
Holland & Hannen & Cubitts, Ltd.	6,723 0 0
G. P. Bankart	6,370 18 0
A. & S. Wheeler	6,128 0 0
Boekbinder & Sons (London), Ltd.	4,984 0 0

For supply of patent ferro-glass pavement lights for the new County Hall, for the London County Council.

King & Co.	£2,882 2 0
Haywards Bros., Ltd.	2,113 11 8
The British Luxfer Prism Syndicate, Ltd.	2,020 15 0

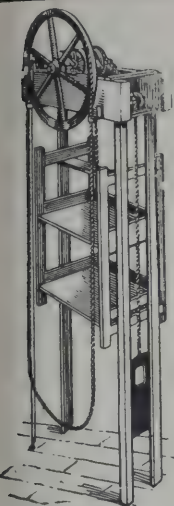
For the provision of steel lantern lights for the new County Hall, for the London County Council.

R. E. Pearse & Co., Ltd.	£11,982 2 1
Hénry Hope & Sons, Ltd.	11,415 18 0
Pennycook Patent Glazing and Engineering Co., Ltd.	10,960 6 0
British Luxfer Prism Syndicate, Ltd.	9,660 6 9

For supply of electric motors required in connection with the electrical work at the new County Hall, for the London County Council.

The General Electric Co., Ltd.	£14,285 6 0
Electromotors, Ltd.	12,254 2 0
Veritys, Ltd.	11,093 12 8
Crompton & Co., Ltd.	10,231 1 6





∴ HAND-POWER ∴  
**LIFTS**  
AND  
Revolving Shutters  
**JOHN BRYDEN & SONS**

(ESTABLISHED 1809)  
LONDON - 15 Glendower Place,  
South Kensington  
EDINBURGH 16 Frederick Street  
GLASGOW 63 West Regent St.  
DUNDEE - 32 Bell Street

**J. WIPPELL & CO., LTD.,**  
With GAWTHORP & SONS,  
(of 16, Long Acre, W.C. 2.)

Art Workers in Wood, Stone,  
Metal and Stained Glass.

**MEMORIALS**  
Of Every Description.

EXETER, and 4 & 5, Duncannon Street, LONDON.  
Charing Cross, W.C. 2.

Established 1820.  
**SAMUEL GRATRIX**  
JUNR. & BRO., LTD.,  
ALPORT WORKS, QUAY ST., MANCHESTER.

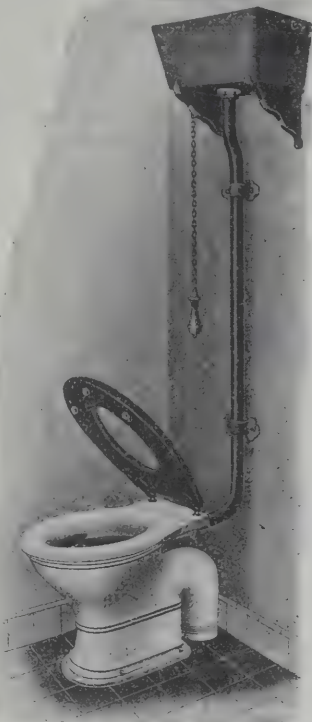
Manufacturers and dealers in  
all kinds of

**IMPROVED  
SANITARY  
APPLIANCES**

Comprising

Hospital Appliances,  
Baths, Lavatories,  
Sinks, Closets, etc.,  
Plumbers' Brass Work,  
for Steam, Water and  
Gas.  
Gas and Electric  
Fittings.

Manufacturers of  
Solid Drawn Lead Pipes,  
Plate, Sheet and  
Ornamental Glass.



Telephone—2800 City.

Telegrams—"Lead, Manchester."

# SMALL ADVERTISEMENT ORDER FORM.

	First two lines.	Each additional line.
AGENCIES ...	2/6	6d.
FOR SALE ...	2/6	6d.
AUCTIONS ...	2/6	6d.
MISCELLANEOUS	2/6	6d.
CONTRACTS ...	3/-	1/-
TENDERS ...	3/-	1/-
COMPETITIONS ...	3/-	1/-
PUBLIC APPOINTMENTS }	3/-	1/-
DEATHS ...	3/-	1/-
FINANCIAL ...	3/-	1/-
PARTNERSHIP ...	3/-	1/-
VACANT }	2/-	6d.
WANTED }	1/-	6d.
EDUCATIONAL ...	2/-	9d.
HOUSES WANTED AND FOR SALE }	2/6	6d.
BUILDING LAND	2/6	6d.

A line averages eight words.


Remittances by Postal Order or Stamps to : P. A. GILBERT WOOD,  
6-11 Imperial Buildings,  
Ludgate Circus, London. E.C 4.

# THE ARCHITECT

FOUNDED 1869.

Incorporating "The Contract Reporter," 1885.  
"The Builder's Reporter and Engineering Times."  
"The Building Trade," 1913.

FRIDAY, FEBRUARY 11, 1921.

*Owing to the increasing demand for back numbers we are compelled to give the following notice:—*

*All numbers for the past twelve months 9d. each, previous to that date 1s. each.*

## TENDERS, &c.

\*.\* *As great disappointment is frequently expressed at the non-appearance of Contracts Open, Tenders, &c., it is particularly requested that information of this description be forwarded to the Office, Imperial Buildings, Ludgate Circus, London, E.C., not later than 2 P.M. on Wednesdays.*

## CONTRACTS OPEN.

**ABBOTSBURY.**—March 1.—For erection of coastguard buildings at Abbotsbury, near Weymouth, Dorset, consisting of houses for four men. The Superintending Civil Engineer, H.M. Naval Depot, Portland.

**ABERDEEN.**—Feb. 15.—For the mason, carpenter, slater, plaster, plumber, electric lighting, and painter and glazier works of nine blocks of cottages, type plan No. 1, and fourteen blocks of type plan No. 2, for the Aberdeen Town Council. Mr. A. H. L. MacKinnon, architect, 245 Union Street, Aberdeen.

**ALMELEY.**—March 1.—For the renovation of the mansion house, including additional electric fittings and sanitary work, conversion of existing buildings into a hospital for children, the construction of drains and sewage disposal works at the County Sanatorium, Almeley, three miles from Eardisley Station, for the Herefordshire County Council. Deposit £5 5s. Mr. G. H. Jack, M.I.C.E., F.S.A., county surveyor, High Town, Hereford.

**ANERLEY.**—Feb. 15.—For erection and completion of fourteen type "A" houses at the Chesham Park housing site, Anerley, S.E. 20, for the Penge Urban District Council. The Clerk to the Council, Town Hall, Anerley, S.E. 20.

**BADWELL ASH, SUFFOLK.**—Feb. 16.—For erection of four cottages at Badwell Ash, for the Thedwastre Rural District Council. Deposit £3 3s. Messrs. Hunt and Coates, architects, 51 Abbeygate Street, Bury St. Edmunds, and Stowmarket.

**BARROW-IN-FURNESS.**—Feb. 22.—For completion of Public Library, Ramsden Square, for the Corporation (in separate trades). The Borough Engineer's Office, Town Hall, Barrow-in-Furness.

**BECKENHAM.**—Feb. 24.—For erection of fifty-four houses on their Shortlands site, for the Beckenham Urban District Council. Contractors may tender for one or more groups of about twelve houses, or for the whole scheme. Deposit £2. Mr. J. A. Angell, surveyor, Council Offices, Bromley Road, Beckenham.

**CARDIFF.**—Feb. 21.—For renovations, &c., at their Children's Homes at (a) Headquarters, Ely, and Cowbridge Road; (b) Canton; (c) Roath, Cathays, Grangetown and Penarth; (d) Barry and Dinas Powis, for the Guardians. Mr. A. J. Harris, clerk, 11 Park Place, Cardiff.

**CARNARVON.**—March 1.—For executing alterations and general repairs at East Gate Street, for the Co-operative Society's new premises, Carnarvon. Mr. H. G. Thomas, architect and surveyor, Castle Buildings, Carnarvon.

**CUBBINGTON.**—Feb. 18.—For erection of houses for the working classes in the parishes of Cubbington, for the Warwick Rural District Council. Send application and £1 1s. deposit by February 9 to Mr. Hughes Trepess, architect, 1 Church Street, Warwick.

**COVENTRY.**—Feb. 14.—For the works required to be executed and materials to be supplied in the erection of 118 houses on the Lydgate Road site, for the Housing Committee. The houses are divided into six groups, any or all of which may be tendered for separately. Deposit £3 3s.

Mr. J. E. Swindlehurst, city engineer and surveyor, Council House, Coventry.

**DENTON.**—Feb. 18.—The West Riding Education Committee invite whole or separate tenders for the following works: Denton Council School: internal renovations, relaying floor boards, &c. Trades: Painters and joiners. The West Riding Education Architect, County Hall, Wakefield.

**DRIDSBURY.**—Feb. 16.—For (1) painting and (2) repairs, at the Old Parsonage and Hotel adjoining, for the Manchester Corporation Finance Committee. Deposit 10s. 6d. The City Architect, Town Hall, Manchester.

**DONCASTER.**—Feb. 17.—For the foundations and other constructional work required in connection with the installation of new generating plant at the electricity works, Grey Friars' Road, for the Corporation. Messrs. Walker & Thompson, architects, Oriel Chambers, Baxter Gate, Doncaster.

**DUNCANSBY HEAD.**—Feb. 23.—For the construction on Duncansby Head, Caithness, of a fog-signal and lighthouse station, consisting of a block of three dwelling-houses, engine-room and stores block, a small tower, &c.,  $1\frac{1}{4}$  mile of Approach Road, and a store at John o' Groats, for the Commissioners of Northern Lighthouses. Tenders are invited in two forms, viz.: (1) On an ordinary measurement and rate basis, and (2) on the basis of (a) the contractor's estimate of the total cost of materials and labour; (b) fixed sums for profit and plant; and (c) a percentage of any saving which may be made on the contractor's accepted estimate (a). Deposit £2 2s. The Engineer to the Commissioners, Northern Lighthouse Office, 84 George Street, Edinburgh.

**EARLBY.**—Feb. 26.—For erection of four parlour houses in Stoney Bank Road, for the Urban District Council. Deposit £1 1s. Mr. J. E. Aldersley, housing architect, Council Offices, Earlby.

**EAST COWES.**—Feb. 16.—For erection of twenty houses (fourteen parlour type and six non-parlour type) on the Beatrice Avenue site, for the East Cowes Urban District Council. The houses are to be built in pairs, and builders may submit tenders for two or more pairs as desired. Deposit £2 2s. Mr. R. Joliffe, P.A.S.I., M.R.S.I., architect, Shooters Hill, Cowes.

**EAST GRINSTEAD.**—Feb. 21.—For erection of forty houses for the East Grinstead Rural Council. The houses will be built in pairs, and tenders may be submitted for cottages on any site or all sites. The following schedule shows the number of cottages proposed to be erected on each site: Six cottages on North Road site, Three Bridges, Worth; two cottages on Pound Hill site, Worth; two cottages on Copthorne Common site, Worth; four cottages on Boorers Arms site, Worth; four cottages on Crawley Down site, Worth; four cottages on West Hoathly Village site, West Hoathly; four cottages on Sharpthorne site, West Hoathly; two cottages on Birch Grove site, West Hoathly; two cottages on Goat Farm site, Forest Row; six cottages on Hartfield Road site, Forest Row; and four cottages on Colemans Hatch site, Hartfield. Deposit £1 1s. per site up to a maximum of £5 5s. Mr. G. Turton, architect to the Council, 36 High Street, East Grinstead.

**GLASGOW.**—Feb. 16.—For the patent roof glazing in connection with the extension of the municipal buildings, for the Corporation. Deposit £5. Messrs. Watson, Salmond and Gray, architects, 242 West George Street, Glasgow, and Mr. J. Lindsay, town clerk, City Chambers, Glasgow.

**GREAT DRIFFIELD.**—Feb. 25.—For erection of eleven houses on the Council's housing site at the corner of Bridlington Road and the Avenue, for the Urban District Council, Driffeld. Mr. H. Brown, clerk, Exchange Street, Driffeld, and Mr. M. B. Parkin, architect, Belvedere Parade, Bridlington.

**GUILDFORD.**—February 16.—For the erection of a new telephone repeater station at Guildford, Surrey. Deposit £1 1s. The head post office at Guildford, or the Director of Contracts, H.M. Office of Works, &c., Storey's Gate, Westminster, S.W. 1.

**GUILDFORD.**—Feb. 18.—For provision of deal screens or partitions, and the fitting up of four wash-up enclosures within the infirmary buildings of the Guardians' Institution, Warren Road, for the Guardians. Mr. E. L. Lunn, L.R.I.B.A., 36 High Street, Guildford.

**HALIFAX.**—Feb. 19.—For erection of forty houses at Wakefield Road (scullery type, "H"), under the following trades, for the Housing Committee:—Excavation, mason and bricklayer, carpenter and joiner, slater and plasterer, plumber and glazier, painter and decorator. Deposit £2 2s. Mr. J. Lord, M.I.C.E., borough engineer, Halifax.



## The Secret of Juneful Bells



After centuries of bell-founding the secret of "tone" in bells was only discovered in recent years. The late Canon Simpson propounded the theory that a musical bell should probably have five distinct notes at correct intervals—so as to be "in tune with itself." We have found how to put this theory into practice in the re-casting of old bells and the making of truly musical church peals. We undertake casting and fixing in any part of the world; and are always pleased to answer inquiries.

**Gillett & Johnston,**  
Established 1844.  
Croydon.

SPECIFY

**THE MOST EFFICIENT**

**VAUGHAN'S  
PURE BITUMEN**

**DAMP-PROOF COURSES**

Made from Highest-Grade Materials.  
Extensively specified for Important  
Contracts, Housing Schemes, etc.

**ROOFING FELTS**

**"REXOID"** SELF-FINISHED BITUMEN ROOFING.  
**"DUREX"** SMOOTH, FLEXIBLE FELT FOR ROOFING AND SARKING.  
**"DURITE"** SUPERIOR BITUMEN UNDERSLATING, Etc.

For Samples, etc., apply to Manufacturers :  
**H. R. VAUGHAN & CO. Ltd.,**  
(Dept. A) Works : GATESHEAD-ON-TYNE.  
Preston, Lancs, and Bishop Auckland.

LOW PRICES.

BEST WORK.



**THE BRILLIANT SIGN CO. Ltd.,**  
38 GRAY'S INN ROAD, LONDON.  
18 Mount Street, Manchester. 25 Cookridge Street, Leeds.

WHY BUY FOREIGN PENCILS?

**WOLFF'S  
Royal Sovereign**  
PENCILS ARE BRITISH MADE



The finest Pencil in the World for Architects, Draughtsmen, and General use because of its smoothness and great durability. Made in all degrees by THE ROYAL SOVEREIGN PENCIL CO. LTD., Falcon Pencil Works, Battersea, S.W. Famous over 100 years. By appointment to H.M. the King. Price 6d. each. Sold by all Stationers.



Platers' Shed at Large Shipbuilding Yard, coated with "Bitumastic" Solution.

**"BITUMASTIC"**  
Regd. Trade Mark.

Lengthens Life of Steel and Iron Structures by Preventing Rust.

It lasts longer, dries quicker, goes much further, and costs less than oil paints. Although hitherto obtainable in Black only; Red, Brown, and Green shades can now be supplied possessing the lasting qualities of the Black, with the additional advantage of permanent colour.

**WAILES DOVE BITUMASTIC LTD.,**  
NEWCASTLE-ON-TYNE, London, Liverpool, Glasgow, Leeds, Manchester, Birmingham, Hull, Cardiff, Dublin, New York, etc.

Telegrams: "Bitumastic."

Telephones in Every Office.



**HAYWARDS HEATH.**—Feb. 17.—For erection of twenty houses (brick) at Eastern Road, for the Urban District Council. Contractors may tender for the whole of the houses or for blocks of six or eight houses. Deposit £2 2s. Mr. G. Plummer, A.M.I.C.E., surveyor, Council Offices, Haywards Heath.

**HOLLINGWORTH.**—Feb. 22.—For erection of twelve or more houses, in pairs, on the Green Lane site, Hollingworth, in Chester. Also for the construction of a road and sewer in connection therewith, for the Hollingworth Urban District Council. Deposit £3 3s. Mr. G. H. Wilson, clerk, Norfolk Square, Glossop.

**INVERNESS.**—Feb. 17.—For alterations to the head post office at Inverness. Tenders are required for the whole work, and not for separate trades. Deposit £1 1s. The Postmaster, Inverness, or the Principal Architect, H.M. Office of Works, 3 Parliament Square, Edinburgh.

**LEEDS.**—Feb. 16.—For the whole of the work required in connection with the proposed kitchen and scullery at the Central High School, Woodhouse Lane, for the Education Committee. The Architect's Section, Calverley Street, Leeds.

**LEEDS.**—Feb. 21.—For all combined trades in connection with the erection of fifty-six houses on the Hawkesworth Wood Estate, for the Improvements Committee. Deposit £1 1s. Mr. W. T. Lancashire, city engineer, Municipal Buildings, Leeds.

**LEEK, STAFFS.**—Feb. 25.—For work required in the adaptation of Westwood Hall, Leek, as a high school for girls, for the Staffordshire Education Committee. Send application and 10s. 6d. deposit by February 25 to Mr. Graham Balfour, director of education, County Education Offices, Stafford.

**LINCOLN.**—March 8.—For additions and improvements to Branston Hall, near Lincoln, to fit up as a county sanatorium and for erection of an open-air school in connection therewith, for the Lindsey County Council. Deposit £2 2s. Messrs. Scorer and Gamble, F.R.I.B.A., architects, Bank Street Chambers, Lincoln.

**LITHERLAND.**—For erection of a factory at Litherland, near Liverpool, for Messrs. Lewiss, Ltd., Liverpool, Manchester and Birmingham. Messrs. G. de C. Fraser and Ainley, architects, 26 North John Street, Liverpool.

**LONDON.**—Feb. 19.—For certain alterations and additions to the boiler-house yard, Warkworth House, Isleworth, for the Guardians of Brentford Union. Mr. F. E. Harmsworth, clerk, Union Offices, Isleworth, Middlesex.

**LONDON.**—Feb. 22.—For the construction of concrete wharf wall, &c., at the river depot, Corney Reach, Chiswick, for the Chiswick Urban District Council. Mr. E. Willis, A.M.I.C.E., surveyor, Town Hall, Chiswick.

**LONDON.**—March 9.—For building works, being an extension of the electricity power-house at Millfields Road, for the Hackney Borough Council. Deposit £5 5s. The Borough Electrical Engineer, 306 Mare Street, Hackney, E. 8.

**LUTON.**—Feb. 16.—For erection of twenty-four houses in Selbourne Road on their Dunstable Road housing site, for the Town Council. The houses are in four blocks of six houses each, and the Council are prepared to consider tenders for the whole or for one or more blocks. Deposit £2. Mr. B. C. Deacon, Chairman of the Board of Architects, 33 King Street, Luton.

**MAIDSTONE.**—Feb. 21.—For erection of eight houses at Howland Road, Marden, to be built in pairs, for the Maidstone Rural District Council. The Council Offices, King Street, Maidstone.

**MALDON.**—Feb. 22.—For erection and completion of houses in pairs in all or any of the following parishes, for the Maldon Rural District Council: Tolleshunt Major, six houses; Woodham Walter, eight; Purleigh (Village), twelve; Goldhanger, twenty; Purleigh (Round Bush), eight; Great Totham, ten; Latchingdon, twelve; Steeple, six; Stow Maries, six. Mr. W. Almond, surveyor, 6 Market Hill, Maldon.

**MANCHESTER.**—Feb. 25.—For erection of a nurses' home at the Booth Hall Infirmary, Charlestown Road, Blackley, Manchester, for the Guardians. Deposit £2 2s. Mr. F. H. Overmann, F.M.S.A., 5 Cavendish Street, All Saints', Manchester.

**METHLEY.**—Feb. 19.—For erection and completion of fifty-eight dwelling-houses in connection with the Mickle-town housing scheme, for the Methley Urban District Council. Mr. T. Thompson, surveyor, Red House, Methley.

**MINSTER.**—Feb. 24.—For the adaptation of certain wards at the Poor Law Institution, Minster, near Ramsgate, as

nurses' quarters, for the Guardians of the Isle of Thanet Union. The Master of the Institution, Minster, near Ramsgate.

**MORLEY.**—Feb. 19.—For the whole (or any portion) of the works required in erection of a woollen mill at Morley (tall chimney-stack to be a separate contract), for Mr. S. C. Johnson. Mr. T. A. Buttery, L.R.I.B.A., architect and surveyor, Queen Street, Morley.

**NEWTON MOOR, &C., INVERNESS.**—Feb. 19.—For the following works in connection with the erection of twelve double blocks of houses to be erected as follows: Newtonmore (three blocks), Kincaig (two blocks), Lynwilg (one block), Aviemore (one block), Boat of Garten (one block), Nethy Bridge (two blocks), Carr Bridge (two blocks), for the Inverness County Council. Contractors may tender for the whole or part of the work: (1) Excavation and mason works; (2) carpenter and joiner works; (3) slater work; (4) glazier work; (5) plumber work; (6) plaster work; (7) painter work. Mr. A. Cattnach, architect, Kingussie.

**NOTTINGHAM.**—Feb. 23.—For erection of wooden buildings for use as temporary schools on the following sites within the city, for the Education Committee, viz.: Piccadilly, Bulwell (two), Tissington Road (two), Bar Lane, Basford (two), Haydn Road, Sherwood (two), The Wells Road (two). Deposit £1. The City Architect, Guildhall, Nottingham.

**SETTLE.**—Feb. 19.—For erection of sixteen houses of various classes at Hellifield, in their district, or any portion of contract No. 1 of the Hellifield housing scheme, for the Settle Rural District Council. Deposit £1 1s. Mr. T. A. Foxcroft, surveyor to the Council, Town Hall, Settle.

**SILLOTH, CUMBERLAND.**—Feb. 21.—For the erection and completion of the gentlemen's lavatory, Silloth, for the Holme Cultram Urban District Council. Mr. H. Higginson, licentiate architect, 6 Lowther Street, Carlisle.

**STOURPORT.**—Feb. 24.—For the erection of public lavatories, for the Urban District Council. Mr. A. D. Capel Loft, clerk, Bridge Street, Stourport.

**WALKINGTON.**—Feb. 17.—For alterations and additions to their premises at Walkington, near Beverley, for the Committee of Management of the Hull After-Care Colony. Deposit £1 1s. Mr. Beecroft-Atkinson, F.S.A., Trinity House Lane, Hull.

**WEYMOUTH.**—Feb. 21.—For erection of five pairs of semi-detached cottages in the parish of Preston, and five similar pairs in the parish of Upwey, for the Weymouth Rural District Council. Deposit £1 1s. Mr. G. A. Andrews, F.I.S.E., architect, 157 Dorchester Road, Weymouth.

## TENDERS.

### BARNET.

For the erection of four pairs of type B9 and eight pairs of type B10 cottages at Furze Hill, and five pairs of B10 and five pairs A11 cottages at Watling Street, for the Barnet Rural District Council.

J. P. Coates	£55,403	0	0
W. and D. Wilkins	55,305	0	0
E. J. Logar	51,020	0	0
Payne Bros.	48,897	0	0
Watkins & Son	48,744	0	0
Alperton Building Company	48,654	0	0
C. F. Day	45,240	0	0

### GREAT GADDESSEN.

For the erection of eight cottages in two blocks of four at Chequers End, Great Gaddesden, for the Hemel Hempstead Rural District Council. Mr. T. H. Lightbody, M.S.A., Hemel Hempstead, architect.

Stevens & Horlock	£9,125	14	6
The Harpenden Building Co.	7,597	7	6
Payne Bros.	7,352	0	0
The Nautilus Fire Co.	7,160	0	0
C. Jeyes	6,867	10	0
A. J. Eldridge	6,795	12	0
W. D. Wells, Piccotts End, Hemel Hempstead (accepted)	6,730	0	0

### LONDON.

For the construction of ballast concrete foundations for turbo-alternator at Limehouse generating station, for the Stepney Borough Council.

W. Harbrow, Ltd.	£3,648	0	0
D. T. Jackson (accepted)	2,877	12	4



**DURESCO** WASHABLE WATER PAINT

*The FIRST in the Field. The FOREMOST ever since.*

FORTY Years' Experience has stamped

**DURESCO**

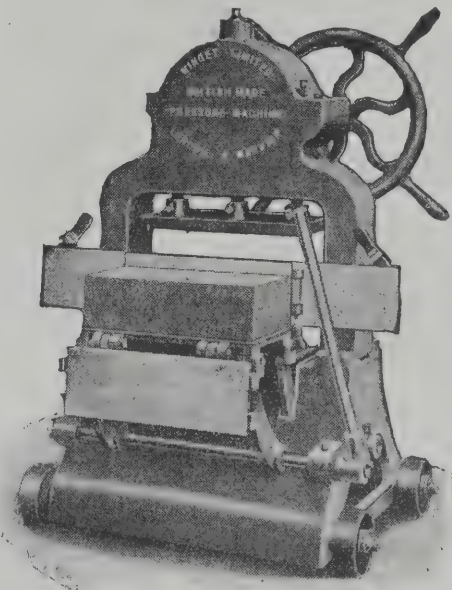
as being the PREMIER Water Paint

Sole Manufacturers: **The Silicate Paint Co.** J. B. ORR & Co. Ltd.  
CHARLTON, LONDON, S.E.



THE  
**“WINGET”**  
PRESSURE MACHINE  
IS  
SIMPLE, EFFICIENT, ECONOMICAL.

THE “Winget” Pressure Machine has been designed to meet the increasing demand in all parts of the world for “Winget” Blocks and Slabs, especially where the wider range of the larger machine, the “Winget” Block-making Outfit, is not required.



Front view showing the moulding box open, with the finished block ready to be carried off.

THE “Winget” Pressure Machine can be worked with the lightest of unskilled labour, and has proved its capacity to produce both blocks and slabs of the highest quality at a minimum cost. Any one can work it efficiently.

**WINGET LIMITED**

Head and Registered Office: **WINGET HOUSE,** Foundry and Engineering Works:  
24J Grosvenor Gardens, **THE CAPE, Warwick.**  
Westminster, S.W. 1.  
Telegrams: “Wingetism, Phone, London.”  
Telephone: Vic. 8334 & 8335. Telegrams: “Wingetism, Warwick.”  
Telephone: Warwick 83.





# THE ARCHITECT

FOUNDED 1869.

Incorporating "The Contract Reporter," 1885.  
 "The Builder's Reporter and Engineering Times."  
 "The Building Trade," 1913.

FRIDAY, FEBRUARY 18, 1921.

Owing to the increasing demand for back numbers we are compelled to give the following notice:—

All numbers for the past twelve months 9d. each, previous to that date 1s. each.

## TENDERS, &c.

\*.\* As great disappointment is frequently expressed at the non-appearance of Contracts Open, Tenders, &c., it is particularly requested that information of this description be forwarded to the Office, Imperial Buildings, Ludgate Circus, London, E.C., not later than 2 P.M. on Wednesdays.

## CONTRACTS OPEN.

ABBOTSBURY.—March 1.—For erection of coastguard buildings at Abbotsbury, near Weymouth, Dorset, consisting of houses for four men. The Superintending Civil Engineer, H.M. Naval Depot, Portland.

ABERDEEN.—Feb. 22.—For the execution of mason, concrete, steam heating, joiner and painter, and glazier works at Oldmill Hospital, for the City Parish Council of Aberdeen. Messrs. Kelly & Nicol, architects, 367 Union Street, Aberdeen.

ALLITHWAITE (LANCS).—March 2.—For erection of two houses at Allithwaite, for the Ulverston Rural District Council. Mr. H. T. Fowler, A.R.I.B.A., Cornwallis Street, Barrow-in-Furness, or the Council's Engineer, Virginia House, Ulverston.

ALMELEY.—March 1.—For the renovation of the mansion house, including additional electric fittings and sanitary work, conversion of existing buildings into a hospital for children, the construction of drains and sewage disposal works at the County Sanatorium, Almeley, three miles from Eardisley Station, for the Herefordshire County Council. Deposit £5 5s. Mr. G. H. Jack, M.I.C.E., F.S.A., county surveyor, High Town, Hereford.

BANKHEAD (ABERDEEN).—Feb. 24.—For the following works in constructing the Rowett Research Institute and the Model Stock Farm on the Greenburn Road at Bankhead:—Excavator, mason, carpenter and joiner, plumber and gas-fitter, plasterer, concretor, painter and glazier, steelworker, asphalter, electrician, heating engineer, roadmaker, drainage for the Joint Committee on Research in Animal Nutrition. Messrs. Tawse & Allan, civil engineers and architects, 10 Bon-Accord Square, Aberdeen.

BRAY.—March 1.—For erection of eight Type B houses on the housing site Bray (Windsor Road), for the Cookham Rural District Council. Mr. F. Woods, A.R.I.B.A., 86 High Street, Maidenhead.

CARMARTHEN.—March 2.—For erection of twenty-four houses on the Morgan Arms Field, for the Borough Council. Deposit £2 2s. Mr. F. Hughes, F.G.S., A.M.I.Mech.E., borough surveyor, John Street, Carmarthen.

CARNARVON.—March 1.—For executing alterations and general repairs at East Gate Street, for the Co-operative Society's new premises, Carnarvon. Mr. H. G. Thomas, architect and surveyor, Castle Buildings, Carnarvon.

DUNCANSBY HEAD.—Feb. 28.—For the construction on Duncansby Head, Caithness, of a fog-signal and lighthouse station, consisting of a block of three dwelling-houses, engine-room and stores block, a small tower, &c.,  $\frac{1}{4}$  mile of Approach Road, and a store at John o' Groats, for the Commissioners of Northern Lighthouses. Tenders are invited in two forms, viz.: (1) On an ordinary measurement and rate basis, and (2) on the basis of (a) the contractor's estimate of the total cost of materials and labour; (b) fixed sums for profit and plant; and (c) a percentage of any saving which may be made on the contractor's accepted estimate (a). Deposit £2 2s. The Engineer to the Commissioners, Northern Lighthouse Office, 84 George Street, Edinburgh.

DUNFERMLINE.—March 5.—For the following works in connection with the erection of thirty-two houses at the Townhill site, for the Town Council:—Excavator and brick work; carpenter, joiner and ironmonger work; glazier work; slater and rough-cast work; plumber and gasfitter work; plaster work; painter work. Alternative prices are requested for concrete block work. Deposit £2 2s. The Burgh Engineer, City Chambers, Dunfermline.

EARLBY.—Feb. 26.—For erection of four parlour houses in Stoney Bank Road, for the Urban District Council. Deposit £1 1s. Mr. J. E. Aldersley, housing architect, Council Offices, Earlby.

EASTRY (KENT).—Feb. 28.—For the pulling down and rebuilding of five chimney stacks and repointing two chimneys on the hospital at the Eastry Union Workhouse, for the Guardians of Eastry Union. Mr. F. A. Cloke, clerk, 51 Strand Street, Sandwich.

GREAT DRIFFIELD.—Feb. 25.—For erection of eleven houses on the Council's housing site at the corner of Bridlington Road and the Avenue, for the Urban District Council, Driffield. Mr. H. Brown, clerk, Exchange Street, Driffield, and Mr. M. B. Parkin, architect, Belvedere Parade, Bridlington.

GOUROCK.—March 7.—For erection of a building for the accommodation of pilots at Gourrock Pier, for the Caledonian Railway Co. Deposit £2 2s. The Company's Engineer, Buchanan Street Station, Glasgow.

GRAVESEND.—Feb. 28.—For erection of five detached bungalow cottages on the Wrotham Road and Cross Lane site, of the proposed Sailors' and Soldiers' Memorial Homes, for the Trustees. Deposit 10s. 6d. Mr. G. E. Clay, A.R.I.B.A., architect, 198 Parrock Street, Gravesend.

HALIFAX.—March 12.—For the necessary excavating, concreting, and brickwork required in laying down the foundations for two cooling towers at the electricity works, for the Electricity Committee of the Corporation. Deposit £2 2s. Mr. J. Lord, M.I.C.E., borough engineer, Crossley Street, Halifax.

HITCHIN.—Send applications and £2 2s. deposit at once to Mr. A. E. Passingham, clerk, 5 Bancroft, Hitchin, Herts.

HUDDERSFIELD.—Feb. 28.—For erection of filter-house and construction of reinforced concrete tanks at Hill Top, Salendine Nook, in two separate contracts, for the Corporation. Mr. H. Sutcliffe, borough architect, 1 Peel Street, Huddersfield.

HULL.—March 4.—For erection of an infectious diseases pavilion, including drainage, &c., at the Cottingham Castle Estate, for the Health Committee. Deposit £2 2s. Mr. J. H. Hirst, city architect, Guildhall, Hull.

ILFORD.—Feb. 22.—For the erection and completion of a garage and store at the Council Depot, Ley Street, for the Urban District Council. Deposit £2 2s. The engineer and surveyor, Town Hall, Ilford.

INNERLEITHEN.—Feb. 28.—For erection of ten houses in five blocks in Buccleuch Street, and ten houses in five blocks on the Leithen Road (each group of which houses may form a separate contract), for the following trades: Mason and brickwork, carpenter and joiner work, glazier work, plaster work, slater work, plumber work. Messrs. Dick Peddie and Walker Todd, 8 Albyn Place, Edinburgh.

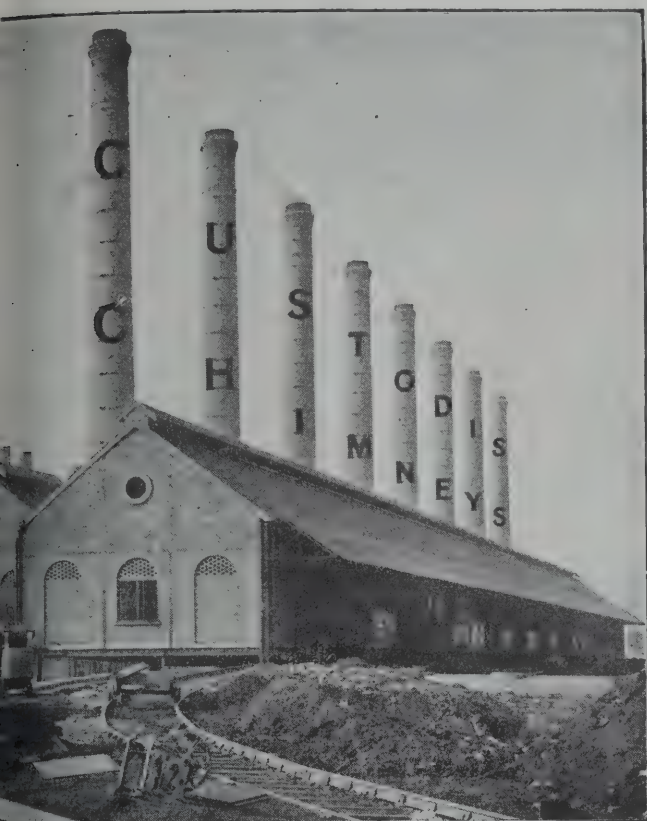
LANGLEY MILL.—Feb. 26.—For erection and completion of twelve houses in Sedgwick Street, Langley Mill, for the Heanor Urban District Council. Tenders may be submitted for one or more pairs, or for the whole of the number. Deposit £1 1s. Mr. A. G. Wheeler, architect, Eastwood.

LEEK, STAFFS.—Feb. 25.—For work required in the adaptation of Westwood Hall, Leek, as a high school for girls, for the Staffordshire Education Committee. Send application and 10s. 6d. deposit by February 25 to Mr. Graham Balfour, director of education, County Education Offices, Stafford.

LETCHEWORTH.—March 3.—For erection and completion of a County Council school at West View, Letchworth, for the Education Committee of the Hertfordshire County Council. Deposit £1 1s. Lieut.-Col. A. E. Prescott, County Surveyor's Office, Hatfield.

LINCOLN.—March 8.—For additions and improvements to Branston Hall, near Lincoln, to fit up as a county sanatorium and for erection of an open-air school in connection therewith, for the Lindsey County Council. Deposit £2 2s. Messrs. Scorer and Gamble, F.R.I.B.A., architects, Bank Street Chambers, Lincoln.





EIGHT CHIMNEYS RECENTLY BUILT BY CUSTODIS, LTD.

Inquiries invited.

**CUSTODIS, LTD.,**

119 Victoria Street,  
WESTMINSTER, S.W.1.

TELEGRAMS—Custodomus Sowest.  
PHONE—779 Victoria.

# BEAUDEXOL

SUPER WATER PAINT  
IN 40 STANDARD SHADES

PERMANENT  
WASHABLE

DURABLE  
SANITARY

■ ■ ■ ■

BEAUDEXOL and its allied products will be exhibited on Stand 49, Row D, at the International Building Trades Exhibition, Olympia, London, April 12 to 26 inclusive.

■ ■ ■ ■

**BROWN & CRITCHLEY, LTD.,**  
LENZIE, SCOTLAND.

Telegrams: "Walpa, Lenzie."

Telephone: 51 Kirkintilloch.

LOW PRICES.

BEST WORK.



**THE BRILLIANT SIGN CO. Ltd.,**  
38 GRAY'S INN ROAD, LONDON.

18 Mount Street, Manchester.

25 Cookridge Street, Leeds.

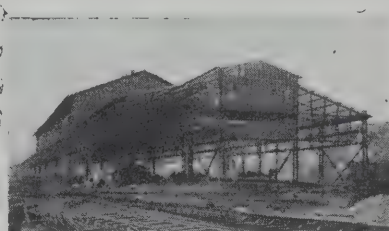
## "PLASTERERS' HAIR"

RELIABLE AND ECONOMICAL.

Our Hairs are Stocked by over 600 Builders' Merchants.

The Associated Wool Mills & Hair Manufacturers,  
Tottenham, Ltd.,  
London, N. 17.

Telephone:  
Tottenham 1694:



Platers' Shed at Large Shipbuilding Yard, coated with "Bitumastic" Solution.

## "BITUMASTIC"

Regd. Trade Mark.

Lengthens Life of Steel and Iron Structures by Preventing Rust.

It lasts longer, dries quicker, goes much further, and costs less than oil paints. Although hitherto obtainable in Black only; Red, Brown, and Green shades can now be supplied possessing the lasting qualities of the Black, with the additional advantage of permanent colour.

**WAILES DOVE BITUMASTIC LTD.,**

NEWCASTLE-ON-TYNE, London, Liverpool, Glasgow, Leeds, Manchester, Birmingham, Hull, Cardiff, Dublin, New York, etc.

Telegrams: "Bitumastic."

Telephones in Every Office.



**LIVERPOOL.**—March 9.—For erection of Liverpool new Parcels Office. H.M. Office of Works, James Street, Liverpool, and the Director of Contracts, H.M. Office of Works, &c., Storey's Gate, Westminster, S.W. 1.

**LONDON.**—Feb. 22.—For the construction of concrete wharf wall, &c., at the river depot, Corney Reach, Chiswick, for the Chiswick Urban District Council. Mr. E. Willis, A.M.I.C.E., surveyor, Town Hall, Chiswick.

**LONDON.**—March 1.—For the extension of the Museum Telephone Exchange, London, W.C. 1. Deposit £1 1s. The Director of Contracts, H.M. Office of Works, &c., Storey's Gate, Westminster, S.W. 1.

**LONDON.**—March 9.—For building works, being an extension of the electricity power-house at Millfields Road, for the Hackney Borough Council. Deposit £5 5s. The Borough Electrical Engineer, 306 Mare Street, Hackney, E. 8.

**LONDON.**—March 15.—For erection of seventy houses, either in one contract or, alternatively, for blocks of twenty, twenty and thirty thereof in three separate contracts, on land fronting Ealing and Whitestile Roads, Brentford, for the Urban District Council. Mr. W. J. Westlake, engineer and surveyor to the Council, Clifden House, Boston Road, Brentford.

**MALDON.**—Feb. 22.—For erection and completion of houses in pairs in all or any of the following parishes, for the Maldon Rural District Council: Tolleshunt Major, six houses; Woodham Walter, eight; Purleigh (Village), twelve; Goldhanger, twenty; Purleigh (Round Bush), eight; Great Totham, ten; Latchingdon, twelve; Steeple, six; Stow Maries, six. Mr. W. Almond, surveyor, 6 Market Hill, Maldon.

**MANCHESTER.**—Feb. 25.—For erection of a nurses' home at the Booth Hall Infirmary, Charlestown Road, Blackley, Manchester, for the Guardians. Deposit £2 2s. Mr. F. H. Overmann, F.M.S.A., 5 Cavendish Street, All Saints', Manchester.

**MANCHESTER.**—Feb. 23.—For construction of bathrooms and hot-water supply at Goulde Street Police Station, for the Watch Committee. Deposit 10s. 6d. The City Architect, Town Hall, Manchester.

**MINSTER.**—Feb. 24.—For the adaptation of certain wards at the Poor Law Institution, Minster, near Ramsgate, as nurses' quarters, for the Guardians of the Isle of Thanet Union. The Master of the Institution, Minster, near Ramsgate.

**NEWBIGGIN-BY-SEA.**—Feb. 26.—For erection of three pairs of A type and 47 pairs of B type houses, for the Urban District Council. Mr. R. Appleby, surveyor, Council Office, Newbiggin-by-Sea.

**NORTHAMPTON.**—Feb. 28.—For erection of (a) eighty houses of brick construction on the Abington Lodge estate, and (b) eight houses on the Far Cotton estate, for the Housing and Town-planning Committee. Deposit £3 3s. for each contract. Mr. A. Fidler, M.Inst.C.E., borough engineer, Guildhall, Northampton.

**NORTH CHEAM.**—March 2.—For the repair and external painting required at the Croydon Sanatorium at North Cheam, Surrey, for the Croydon and Districts Joint Small-pox Hospital Board. Mr. R. M. Chart, F.S.I., Lower Green, Mitcham, Surrey.

**NOTTINGHAM.**—Feb. 23.—For erection of wooden buildings for use as temporary schools on the following sites within the city, for the Education Committee, viz.: Piccadilly, Bulwell (two), Tissington Road (two), Bar Lane, Basford (two), Haydn Road, Sherwood (two), The Wells Road (two). Deposit £1. The City Architect, Guildhall, Nottingham.

**PENRHIWCEIBER.**—Feb. 28.—For erection of sixty-six cottages at the Penrhiwceiber Farm site, for the Mountain Ash Urban District Council. The cottages to be built are three pairs of Class A2, six blocks of four of Class A and B combined, and eighteen pairs of Class B. Deposit £2 2s. The Housing Architect, Town Hall, Mountain Ash.

**PIRTON, HERTS.**—March 1.—For completion of erection of thirty houses, for the Hitchin Rural District Council. Approximately one-third of the work has already been executed. Scaffolding, shedding, and a quantity of materials are also on the site. Send application, by February 14, to Mr. A. E. Passingham, 5 Bancroft, Hitchin, Herts.

**RUFFORD.**—March 9.—For erection of additional buildings at Rufford Hall Sanatorium, Rufford, Lancaster. Deposit £1 1s. The Superintendent at the Sanatorium, or the Director of Contracts, H.M. Office of Works, London, S.W. 1.

**RYE.**—March 4.—For erection of houses in the following parishes, for the Rye Rural District Council, viz.: Brede, twelve houses and construct two wells and two private roads; Northiam (Mill Corner), six houses and sink one well. Mr. H. M. Jeffery, architect, 1B Havelock Road, Hastings.

**STOURPORT.**—Feb. 24.—For the erection of public lavatories, for the Urban District Council. Mr. A. D. Capel Loft, clerk, Bridge Street, Stourport.

**SALFORD.**—March 1.—For erection of 122 houses on land situated off Eccles Old Road, Waste Lane, and Tootal Drive, Waste, for the Salford Corporation. Mr. G. Westcott, architect, 13 Bridge Street, Manchester.

**TREHERBERT.**—Feb. 22.—For re-building the Royal Oak Hotel, Treherbert, for Rhondda Valley and Ely Breweries, Ltd. Mr. W. D. Morgan, M.S.A., architect, 194 Ystrad Road, Pentre, Rhondda.

**WAINSCOT.**—March 3.—For erection of ten houses at Wainscot, for the Strood Rural District Council, Kent. Deposit £2 2s. Messrs. Bridgland and Clay, A.R.I.B.A., architects, 198 Parrock Street, Gravesend.

**WEALDSTONE.**—March 1.—For erection and completion of the whole or any portion of 140 houses in their district, for the Wealdstone Urban District Council, as follows, non-parlour type: No. 1a, 8 blocks of 4 houses, 32; No. 5a, 4 blocks of 4 houses, 16; No. 7a, 6 pairs, 12. Parlour type: No. 2b, 2 blocks of 4 houses, 8; No. 4b, 9 blocks of 4 houses, 36; No. 6b, 8 pairs, 16; No. 9b, 5 pairs, 10; No. 8b4, 5 pairs, 10. Deposit £2 2s. Mr. H. Walker, surveyor, Council Offices, Wealdstone.

**WITHAM.**—Feb. 26.—For erection of the first group of twelve houses on the Cocks Farm site, or for any portion of that number, for the Witham Urban District Council. Mr. W. P. Perkins, surveyor to the Council, Collingwood Road, Witham.

## TENDERS.

### BARLBY.

For the erection of three houses and police cells at Barby, for the East Riding of Yorkshire County Council.

W. Irwin & Co.	£5,065	0	0
J. H. Thompson	4,620	16	9
W. TUNE, Osgodby (accepted)	3,248	12	0

### EASTHAMPTSTEAD.

For the erection of sixteen cottages at Sandhurst, for the Easthampstead District Council.

Norris & Co.	£18,010	0	0
Wheeler Bros.	17,888	0	0
J. Taylor	17,759	0	0
Purnell & Clifford	17,214	0	0
E. C. Hughes	16,772	2	0
Charman	16,708	0	0
Spear & King	16,546	0	0

### HAYWARDS HEATH.

For the erection of twenty houses (brick) at Eastern Road, for the Urban District Council. Mr. G. Plummer, A.M.I.C.E., surveyor, Haywards Heath.

H. & J. Taylor	£27,998	0	0
H. Meckhonik	24,520	0	0
T. Divall	22,737	0	0
H. White	21,300	0	0
Cook & Sons	20,700	0	0
James Bodle, Ltd.	20,284	0	0
Stevens, Horlock & Co.	18,160	0	0

### SOUTHWICK.

For the erection of twenty-eight houses, being the first instalment of the housing scheme for 100 houses in the district, for the Urban District Council. Mr. G. W. Warr, architect and surveyor, Southwick.

J. Hackman	£36,915	0	0
Longley	32,286	0	0
H. Farrow	31,932	0	0
H. Meckhonik	30,465	0	0
Lynn & Sons	29,644	0	0
R. Cook	29,145	0	0
J. Barnes	28,776	0	0
H. Boot	28,181	0	0
Field & Cox	28,022	0	0
J. Bodle	26,307	0	0
Hall's Construction	26,450	0	0
London Building Co.	25,620	0	0
P. W. GLADSTONE, 39A High Street, Wimbledon Common, S.W. 19 (accepted)	25,771	0	0



# JAMES GIBBONS, LTD.

ST. JOHN'S WORKS WOLVERHAMPTON

## GIBBONS' "COTTAGE" WINDOW WITH PATENT SLIDING SASH

British Patents Nos. 12630/18 ; 123903/18 and 5535/19. Also patented in U.S.A., France, Belgium, Australia, New Zealand, Canada, India and South Africa.



Light in  
Construction  
and Fireproof.

Standard Sizes  
from  
Stock.

All outside surfaces easily cleaned from the inside of the rooms, the sliding portion hinged to open inwards and fitted with attachment for locking the casement when partly opened for ventilation.

The first  
Cottages in  
Great Britain  
completed  
under the  
Government  
Housing  
Scheme,  
showing  
Gibbons'  
"Cottage"  
Windows  
fixed.



These  
Cottages  
are also fitted  
throughout  
with Gibbons'  
Locks and  
Furniture.

FULL PARTICULARS ON APPLICATION.

London Office : 15 & 16 FISHER STREET, SOUTHAMPTON ROW, W.C. 1.



# THE ARCHITECT

FOUNDED 1869.

Incorporating "The Contract Reporter," 1885.  
 "The Builder's Reporter and Engineering Times."  
 "The Building Trade," 1913.

FRIDAY, FEBRUARY 25, 1921.

Owing to the increasing demand for back numbers we are compelled to give the following notice:—  
 All numbers for the past twelve months 9d. each, previous to that date 1s. each.

## TENDERS, &c.

\* \* As great disappointment is frequently expressed at the non-appearance of Contracts Open, Tenders, &c., it is particularly requested that information of this description be forwarded to the Office, Imperial Buildings, Ludgate Circus, London, E.C., not later than 2 P.M. on Wednesdays.

## CONTRACTS OPEN.

ALMELEY.—March 1.—For the renovation of the mansion house, including additional electric fittings and sanitary work, conversion of existing buildings into a hospital for children, the construction of drains and sewage disposal works at the County Sanatorium, Almeley, three miles from Eardisley Station, for the Herefordshire County Council. Deposit £5 5s. Mr. G. H. Jack, M.I.C.E., F.S.A., county surveyor, High Town, Hereford.

ANGLESEY.—March 10.—For erection of workmen's dwellings, for the Anglesey (East) Joint Housing Board, from plans prepared by Mr. J. Owen, F.R.I.B.A., architect, Menai Bridge, viz.: Parish of Rhodogeidio (Llanerchymedd), twenty-two houses; parish of Llanfechell, twelve houses; parish of Llanbadrig, eight houses. Messrs. T. H. Hughes and Benjamin Evans (joint secretaries), 12 High Street, Menai Bridge.

AYLESBURY.—For erection of ten houses in Havelock Street and Fleet Street, for the Aylesbury Public Utility Society. Deposit £2 2s. Mr. W. N. Green, architect, 7 Ripon Street, Aylesbury.

AYLESBURY.—For erection and completion of cottages within the district, as follows, for the Aylesbury Rural District Council: thirty cottages on a site at Bierton, four cottages on a site at Cheersley, ten cottages on a site at Wingrave, six cottages on a site at Buckland, six cottages on a site at Westcott, six cottages on a site at Drayton Beauchamp, together with the drainage, footpaths and fencing in connection therewith. Mr. F. Taylor, A.R.I.B.A., architect, 7 Bourbon Street, Aylesbury.

BALLACHULISH.—March 3.—For the following works in erection of one block of four houses and four blocks of two houses at Ballachulish, for the Argyll County Council: (1) Paths and fencing, (2) excavator, mason and brickwork, (3) carpenter, joiner, ironmongery and glazier works, (4) plumber work, (5) plaster work, (6) slater and harling work, (7) painter work. Mr. R. W. Campbell, architect, Columba Buildings, Oban.

BARNWOOD.—March 8.—For building seven blocks semi-detached parlour houses, and two blocks semi-detached bungalows, with drains and paths, at Barnwood, for the Gloucester Rural District Council. Tenders will be considered for the whole nine blocks or for a less number. The Surveyor, Berkeley House, Berkeley Street, Gloucester.

BELPER.—March 1.—For the erection of the whole or any portion (as divided below) of the houses to be built on the Crich Lane site, for the Belper Urban District Council: One pair Type A, six pairs type A, two pairs type B, main drains, &c., and footpath. Deposit £2 2s. Lieut.-Colonel M. Hunter, O.B.E., A.M.I.C.E., M.S.A., architect, Belper.

BIGGAR.—March 10.—For the following works in connection with the erection of twelve dwelling houses in blocks of two at Southcrofts, Biggar, for the Town Council, viz.: Excavator, concrete and brick works, wright and glazier works, slater work, rough cast work, plaster work, plumber and gasfitter works, painter work. Mr. L. A. Morrison, architect, Murrayfield, Biggar, or Messrs. John H. Allan & Sons, 224 St. Vincent Street, Glasgow.

BRAY.—March 1.—For erection of eight Type B houses on the housing site Bray (Windsor Road), for the Cookham Rural District Council. Mr. F. Woods, A.R.I.B.A., 86 High Street, Maidenhead.

BROADSTAIRS.—March 8.—For erection and completion of fifty-four houses on land at St. Peter's, for the Broadstairs and St. Peter's Urban District Council. Deposit £2 2s. Mr. E. E. Moodey, architect, 109 High Street, Broadstairs.

CARMARTHEN.—March 2.—For erection of twenty-four houses on the Morgan Arms Field, for the Borough Council. Deposit £2 2s. Mr. F. Hughes, F.G.S., A.M.I.Mech.E., borough surveyor, John Street, Carmarthen.

CARNARVON.—March 1.—For executing alterations and general repairs at East Gate Street, for the Co-operative Society's new premises, Carnarvon. Mr. H. G. Thomas, architect and surveyor, Castle Buildings, Carnarvon.

CARNOUSTIE.—March 4.—For mason, joiner, plumber, plaster, tiler, glazier, and painter works, and for grates required in erection of three blocks of type "B" four-apartment, semi-detached cottages, also for cleft chestnut pale fencing for whole site, for the Town Council. Messrs. Bruce, Son & Morton, architects, 10 Whitehall Street, Dundee.

CLIFTON, &C., LANCS.—March 5.—For erection and completion of 138 houses in connection with three housing schemes in the townships of Clifton, Davyhulme and Flixton; also for the construction of roads and sewers, for the Barton-upon-Irwell Rural District Council. Contractors may tender for the whole or part or parts of the schemes, the minimum number of houses which may be tendered for being one block of three. Deposit £2 2s. Mr. G. G. Forster, A.M.I.C.E., architect, Green Lane, Patricroft, near Manchester.

CLEETHORPES.—March 10.—For erection of the following non-parlour houses (Ministry of Health type) on their Clee Road site, for the Urban District Council: thirty houses, type A 134; twelve houses, type A 135; and twelve houses, type A 170. Deposit £2 2s. Mr. L. W. Pye, A.M.I.C.E., engineer and surveyor, Council Offices, Cleethorpes.

DARTFORD.—March 2.—For the erection of 132 houses in Lowfield Street, for the Urban District Council. Persons may tender for the erection of one or more of the six sections. Send applications and £1 1s. deposit for each section by March 2 to Mr. J. J. Hurlley, clerk, Council Offices, Dartford.

DUNFERMLINE.—March 5.—For the following works in connection with the erection of thirty-two houses at the Townhill site, for the Town Council:—Excavator and brick work; carpenter, joiner and ironmonger work; glazier work; slater and rough-cast work; plumber and gasfitter work; plaster work; painter work. Alternative prices are requested for concrete block work. Deposit £2 2s. The Burgh Engineer, City Chambers, Dunfermline.

FALMOUTH.—March 2.—For erection of a further fifty-six houses at Penwerris, in connection with the Falmouth housing scheme. Mr. W. H. Lupton, town clerk, Falmouth.

GOOLE.—March 9.—For erection of twenty-six houses, type B, Southerly, on the Pasture Road site, for the Urban District Council. Deposit £2. Mr. J. H. Castle, engineer and surveyor, Council Offices, Goole.

GOUROCK.—March 7.—For erection of a building for the accommodation of pilots at Gourrock Pier, for the Caledonian Railway Co. Deposit £2 2s. The Company's Engineer, Buchanan Street Station, Glasgow.

GRANTHAM.—March 15.—For alterations and additions to the Ministry of Pensions Office, Harrowby Camp, Grantham. Deposit £1 1s. The Post Office, Grantham, or the Director of Contracts, H.M. Office of Works, &c., Storey's Gate, Westminster, S.W. 1.

HALIFAX.—March 12.—For the necessary excavating, concreting, and brickwork required in laying down the foundations for two cooling towers at the electricity works, for the Electricity Committee of the Corporation. Deposit £2 2s. Mr. J. Lord, M.I.C.E., borough engineer, Crossley Street, Halifax.

HOLLOWAY.—March 8.—For erection of three pairs of type A and two pairs of type B houses, with the necessary drainage, fencing, &c., at Holloway, near Matlock, for the Belper Rural District Council. Mr. J. B. Mason, architect, Duffield.

HOOLE.—March 7.—For erection and completion of a fire station, stabling, &c., at the Council Offices, Hoole Road, for the Urban District Council. Mr. F. Davies, architect, 14 Newgate Street, Chester.



SPECIFY

**THE MOST EFFICIENT**

# VAUGHAN'S PURE BITUMEN DAMP-PROOF COURSES

Made from Highest-Grade Materials.  
Extensively specified for Important  
Contracts, Housing Schemes, etc.

## ROOFING FELTS

- "REXOID" SELF-FINISHED BITUMEN ROOFING.
- "DUREX" SMOOTH, FLEXIBLE FELT FOR ROOFING AND SARKING.
- "DURITE" SUPERIOR BITUMEN UNDERSLATING, Etc.

For Samples, etc., apply to Manufacturers:

**H. R. VAUGHAN & CO. Ltd.,**  
(Dept. A) Works: GATESHEAD-ON-TYNE.  
Preston, Lancs, and Bishop Auckland.

LOW PRICES.

BEST WORK.



**THE BRILLIANT SIGN CO. Ltd.,**  
38 GRAY'S INN ROAD, LONDON.  
18 Mount Street, Manchester. 25 Cookridge Street, Leeds.



## Photo Printing

FOR

**ARCHITECTS AND ENGINEERS**  
AND

*Commercial Photography*  
in all its branches.

SEND FOR SAMPLES OF OUR WORK.

**B. J. HALL & CO. LTD.**

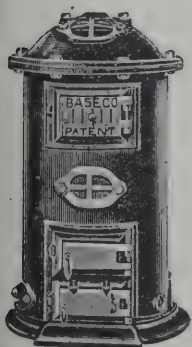
BRANCHES:  
BIRMINGHAM  
NEWCASTLE-ON-TYNE  
GLASGOW.

CHALFONT HOUSE,  
GREAT PETER ST.,  
WESTMINSTER, S.W. 1.

## "The Architect"

Price 6d. weekly, by post 7½d.

Subscription £1 7s. 6d. per annum.



## "BASECO" PATENT BOILER.

The finest Boiler made for Domestic Hot Water  
Supply and for Hot Water Heating with Radiators.

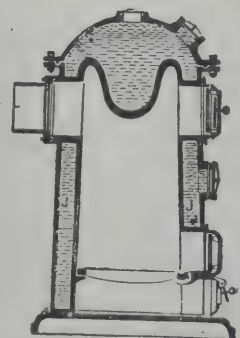
**ABSOLUTELY UNEQUALLED FOR EFFICIENCY  
AND ECONOMY.**

BURNS COAL, COKE, ANTHRACITE AND HOUSEHOLD REFUSE.

**British Invention and Manufacture.**

Through all Heating and Hot Water Engineers and Builders' Merchants.

Patentees: **O. BRUSTER & DE LAUNOIT**, 4 Lloyd's Avenue,  
Succrs. to H. C. ROBOTTOM & CO. LONDON, E.C.3.



Section  
showing Water Pocket.



**HULL.**—March 4.—For erection of an infectious diseases pavilion, including drainage, &c., at the Cottingham Castle Estate, for the Health Committee. Deposit £2 2s. Mr. J. H. Hirst, city architect, Guildhall, Hull.

**KINGS LANGLEY.**—March 12.—For erection of eight cottages in pairs at Kings Langley, for the Hemel Hempstead Rural District Council. Deposit £1 1s. Mr. T. H. Lighbody, M.S.A., architect, 20 Marlowes, Hemel Hempstead.

**LETCHEWORTH.**—March 3.—For erection and completion of a County Council school at West View, Letchworth, for the Education Committee of the Hertfordshire County Council. Deposit £1 1s. Lieut.-Col. A. E. Prescott, County Surveyor's Office, Hatfield.

**LINCOLN.**—March 8.—For additions and improvements to Branston Hall, near Lincoln, to fit up as a county sanatorium and for erection of an open-air school in connection therewith, for the Lindsey County Council. Deposit £2 2s. Messrs. Scorer and Gamble, F.R.I.B.A., architects, Bank Street Chambers, Lincoln.

**LISKEARD.**—March 5.—For erection of the first instalment of thirty-two houses, under the housing scheme, on site at Castle Park, for the Town Council. Tenders will be accepted for blocks of two or more houses. Deposit £3 3s. Messrs. Truscott and Parkes Lees, architects, Liskeard.

**LIVERPOOL.**—March 9.—For erection of Liverpool new Parcels Office. H.M. Office of Works, James Street, Liverpool, and the Director of Contracts, H.M. Office of Works, &c., Storey's Gate, Westminster, S.W. 1.

**LOCHABER.**—March 7.—For mason, brick, joiner, plumber, slater, plaster and cement, and painter works in connection with the erection of fifty-four houses, being part of the first and the whole of the second section of the Lochaber District Housing Schemes. Mr. J. G. Falconer, architect, Fort William.

**LONDON.**—March 1.—For the extension of the Museum Telephone Exchange, London, W.C. 1. Deposit £1 1s. The Director of Contracts, H.M. Office of Works, &c., Storey's Gate, Westminster, S.W. 1.

**LONDON.**—March 9.—For building works, being an extension of the electricity power-house at Millfields Road, for the Hackney Borough Council. Deposit £5 5s. The Borough Electrical Engineer, 306 Mare Street, Hackney, E. 8.

**LONDON.**—March 15.—For erection of seventy houses, either in one contract or, alternatively, for blocks of twenty, twenty and thirty thereof in three separate contracts, on land fronting Ealing and Whitestile Roads, Brentford, for the Urban District Council. Mr. W. J. Westlake, engineer and surveyor to the Council, Clifden House, Boston Road, Brentford.

**MANCHESTER.**—March 10.—For the following work at their Bradford Road station, for the Gas Committee: Contract No. 16—Construction and erection of a steel-framed purifier house and foundations. Contract No. 17—Construction and erection of purifiers, with connections, valves and overhead lifting apparatus. Deposit £3 3s. Mr. G. W. Kaye, secretary, Gas Department, Town Hall, Manchester.

**NORTHWOOD.**—March 9.—For erection of (1) thirty-six houses for the working classes at Northwood; (2) fifty-five houses for the working classes at Eastcote, for the Ruislip-Northwood Urban District Council. Mr. E. R. Abbott, clerk, Council Offices, Northwood, Middlesex, or Messrs. A. & J. Soutar, 8 King William Street, Strand, London, W.C. 2.

**RENFREW.**—March 5.—For the drainage, excavator, brick and mason, carpenter, glazier, slater, plumber, plaster and painter works of the following dwelling-houses, for the District Committee of the First or Upper District of the County of Renfrew, viz.: Jenny Lind, Thornliebank scheme, eighty-four houses, thirty-one blocks; Nitshill scheme, fifty-four, nineteen; Gateside, Barrhead scheme, forty-eight, sixteen; Harvey Street, Yoker scheme, sixty, twenty-three. Tenderers may tender for one or more or all of the schemes. Deposit £1 1s. Mr. J. M. Dow, architect, County Buildings, Paisley.

**RINGWOOD.**—March 11.—For erection of twenty-six "A" (non-parlour type) cottages, and 20 "B" (parlour type) cottages (in pairs), or of any less number, on the Parsonage Barn Lane site, for the Ringwood Rural District Council. Deposit £2 2s. Mr. E. H. H. Griffith, architect, High Street, Downton, Salisbury.

**RUFFORD.**—March 9.—For erection of additional buildings at Rufford Hall Sanatorium, Rufford, Lancaster. Deposit £1 1s. The Superintendent at the Sanatorium, or the Director of Contracts, H.M. Office of Works, London, S.W. 1.

**RYE.**—March 4.—For erection of houses in the following parishes, for the Rye Rural District Council, viz.: Brede, twelve houses and construct two wells and two private roads; Northiam (Mill Corner), six houses and sink one well. Mr. H. M. Jeffery, architect, 1b Havelock Road, Hastings.

**SCARBOROUGH.**—March 1.—For the carpenter and joiner's work and plumber's work in connection with the conversion of public shelter in the North Bay into seven bungalows, for the Town Council. Mr. H. W. Smith, A.M.I.C.E., borough engineer and surveyor, Town Hall, Scarborough.

**TURRIFF.**—March 10.—For the mason, carpenter, slater, plaster, plumber and painter works of six four-roomed houses (three blocks) on Manse Terrace site; also for (1) roads and sewers, (2) mason work of walls, (3) fencing and gates, required in laying-out ground, for the Town Council. Mr. W. L. Duncan, architect, Turriff.

**WAINSCOT.**—March 3.—For erection of ten houses at Wainscot, for the Strood Rural District Council, Kent. Deposit £2 2s. Messrs. Bridgland and Clay, A.R.I.B.A., architects, 198 Parrock Street, Gravesend.

**WEALDSTONE.**—March 1.—For erection and completion of the whole or any portion of 140 houses in their district, for the Wealdstone Urban District Council, as follows, non-parlour type: No. 1a, 8 blocks of 4 houses, 32; No. 5a, 4 blocks of 4 houses, 16; No. 7a, 6 pairs, 12. Parlour type: No. 2b, 2 blocks of 4 houses, 8; No. 4b, 9 blocks of 4 houses, 36; No. 6b, 8 pairs, 16; No. 9b, 5 pairs, 10; No. 8b4, 5 pairs, 10. Deposit £2 2s. Mr. H. Walker, surveyor, Council Offices, Wealdstone.

## TENDERS.

### BEXLEY WELLING.

For enlargement of Bexley Welling Infants' Council School, for the Kent Education Committee. Mr. W. H. Robinson, F.S.A., county education architect, Maidstone.

W. & A. Smith	£2,754 10 0
W. F. Blay, Ltd.	2,625 0 0
W. B. Butler	2,477 0 0
Douglass, Halse & Co., Ltd.	2,343 0 0
F. Butcher	2,325 0 0
T. Knight	2,260 0 0
H. FRIDAY & SONS, Erith (recommended)	2,200 0 0

### IBRAY.

For erection of ten Class A houses at Windsor Road, and six Class A houses at Touchen End, for the Cookham Rural District Council.

#### Windsor Road.

C. W. Cox & Sons	£9,735 0 0
Cripps & Green	9,372 0 0
J. K. Cooper & Sons, Ltd.	9,100 0 0
W. Creed & Co.	8,945 0 0
Ratcliffe & Co.	8,400 0 0
PURNELL & CLIFFORD (recommended)	8,070 0 0

#### Touchen End.

C. W. Cox & Sons	£5,791 0 0
J. K. Cooper & Sons, Ltd.	5,748 0 0
W. Creed & Co.	5,253 0 0
Ratcliffe & Co.	4,965 0 0
PURNELL & CLIFFORD (recommended)	4,570 0 0

### HARROGATE.

For the erection of 110 houses for the Town Council.

A. Hymas	£110,264 13 10
J. Allen & Son	109,706 8 4
Kershaw & Hill	108,232 5 0
Longden & Sons, Sheffield	104,136 0 0
Robert McAlpine & Sons, Huddersfield	96,269 15 9
Revised and recommended	95,413 12 0

### LONDON.

For the reconstruction of police station at Marylebone Lane. The late J. Dixon Butler, F.R.I.B.A., architect, New Scotland Yard, S.W.

A. E. Symes	£19,934 0 0
Rice & Son	19,736 0 0
Holliday & Greenwood	19,153 0 0
Garlick, Ltd.	18,961 0 0
Perry & Co.	18,873 0 0
Holland & Hannen	18,697 0 0
Prestige & Co.	18,564 0 0
J. & H. Higgs	18,473 0 0
C. W. Scott	18,270 0 0
Godson & Sons	18,125 0 0
Arding & Hobbs	17,960 0 0
Patman & Fotheringham	17,291 0 0



# JAMES GIBBONS, LTD.

ST. JOHN'S WORKS

WOLVERHAMPTON

## GIBBONS' "COTTAGE" WINDOW WITH PATENT SLIDING SASH

British Patents Nos. 12630/18; 123903/18 and 5535/19. Also patented in U.S.A., France, Belgium, Australia, New Zealand, Canada, India and South Africa.

Light in  
Construction  
and Fireproof.



Standard Sizes  
from  
Stock.

All outside surfaces easily cleaned from the inside of the rooms, the sliding portion hinged to open inwards and fitted with attachment for locking the casement when partly opened for ventilation.

The first  
Cottages in  
Great Britain  
completed  
under the  
Government  
Housing  
Scheme,  
showing  
Gibbons'  
"Cottage"  
Windows  
fixed.



These  
Cottages  
are also fitted  
throughout  
with Gibbons'  
Locks and  
Furniture.

FULL PARTICULARS ON APPLICATION.

London Office : 15 & 16 FISHER STREET, SOUTHAMPTON ROW, W.C.1.



# THE ARCHITECT

FOUNDED 1869.

Incorporating "The Contract Reporter," 1885.  
 "The Builder's Reporter and Engineering Times."  
 "The Building Trade," 1913.

FRIDAY, MARCH 4, 1921.

Owing to the increasing demand for back numbers we are compelled to give the following notice:—

All numbers for the past twelve months 9d. each, previous to that date 1s. each.

## TENDERS, &c.

\* \* As great disappointment is frequently expressed at the non-appearance of Contracts Open, Tenders, &c., it is particularly requested that information of this description be forwarded to the Office, Imperial Buildings, Ludgate Circus, London, E.C., not later than 2 P.M. on Wednesdays.

## CONTRACTS OPEN.

AMBLE.—March 7.—For (a) fifty houses, (b) roads and sewers, for the Urban District Council. Send names by March 7 to Messrs. G. Reavell, F.R.I.B.A., and W. Arthur Tebbs, L.R.I.B.A., architects, Alnwick.

ANGLESEY.—March 10.—For erection of workmen's dwellings, for the Anglesey (East) Joint Housing Board, from plans prepared by Mr. J. Owen, F.R.I.B.A., architect, Menai Bridge, viz.: Parish of Rhodogeidio (Llanerchymedd), twenty-two houses; parish of Llanfechell, twelve houses; parish of Llanbadrig, eight houses. Messrs. T. H. Hughes and Benjamin Evans (joint secretaries), 12 High Street, Menai Bridge.

AYR.—March 12.—For the various works (digger, brick, and mason work, slater work, roughcast work, plumber work and gas fittings, painter work, glazier work) in connection with the erection of thirty-two houses at Auchinleck, for the Ayr District Committee of the Ayrshire County Council. Send applications by March 12 to Mr. Allan Stevenson, architect, 14 Cathcart Street, Ayr.

BARNWOOD.—March 8.—For building seven blocks semi-detached parlour houses, and two blocks semi-detached bungalows, with drains and paths, at Barnwood, for the Gloucester Rural District Council. Tenders will be considered for the whole nine blocks or for a less number. The Surveyor, Berkeley House, Berkeley Street, Gloucester.

BIGGAR.—March 10.—For the following works in connection with the erection of twelve dwelling houses in blocks of two at Southerofts, Biggar, for the Town Council, viz.: Excavator, concrete and brick works, wright and glazier works, slater work, rough cast work, plaster work, plumber and gasfitter works, painter work. Mr. L. A. Morrison, architect, Murrayfield, Biggar, or Messrs. John H. Allan & Sons, 224 St. Vincent Street, Glasgow.

BLACKPOOL.—For all trades in detached houses, St. Anne's Road East, St. Anne's. Mr. H. Best, architect and surveyor, 1 South King Street, Blackpool.

BROADSTAIRS.—March 8.—For erection and completion of fifty-four houses on land at St. Peter's, for the Broadstairs and St. Peter's Urban District Council. Deposit £2 2s. Mr. E. E. Moodey, architect, 109 High Street, Broadstairs.

BUCKIE.—March 11.—For the following works required in erecting twelve blocks type A, two blocks type B, and four blocks type E, for the Town Council: (1) Mason, brick, and cast concrete work; (2) carpenter and joinery work; (3) slate work; (4) plaster and cement work; (5) plumber work; (6) painter and glazier work. Mr. W. Hendry, burgh surveyor, Buckie, or Messrs. G. Sutherland and Clement George, architects, Aberdeen.

CLEETHORPES.—March 10.—For erection of the following non-parlour houses (Ministry of Health type) on their Clew Road site, for the Urban District Council: thirty houses, type A 134; twelve houses, type A 135; and twelve houses, type A 170. Deposit £2 2s. Mr. L. W. Pye, A.M.I.C.E., engineer and surveyor, Council Offices, Cleethorpes.

CWMDARE.—March 8.—For certain additions, external reparations, and painting of "Elim" Chapel, &c., Cwmdare, Aberdare, for the trustees. Messrs. T. Roderick and Son, architects, Clifton Street, Aberdare.

EDINBURGH.—March 7.—The Town Council invite tenders for (1) mason, joiner, plumber, plaster, and slater work in one undertaking, and (2) painter and cleaning works, of proposed alterations at offices, 12 St. Giles Street, for Burgh's Assessor's Department. Mr. A. Williamson, A.R.I.B.A., city architect, Public Works Office, City Chambers, Edinburgh.

EDINBURGH.—March 11.—For the following works, separately or in one undertaking: excavator, mason, &c.; carpenter, joiner and glazier; slater; plaster and concrete; and plumber works, of proposed electricity sub-station, Cowgate, for the Town Council. Mr. J. A. Williamson, A.R.I.B.A., city architect, Public Works Office, City Chambers, Edinburgh.

GOOLE.—March 9.—For erection of twenty-six houses, type B, southerly, on the Pasture Road site, for the Urban District Council. Deposit £2. Mr. J. H. Castle, engineer and surveyor, Council Offices, Goole.

GRANTHAM.—March 15.—For alterations and additions to the Ministry of Pensions Office, Harrowby Camp, Grantham. Deposit £1 1s. The Post Office, Grantham, or the Director of Contracts, H.M. Office of Works, &c., Storey's Gate, Westminster, S.W. 1.

HALIFAX.—March 12.—For the necessary excavating, concreting, and brickwork required in laying down the foundations for two cooling towers at the electricity works, for the Electricity Committee of the Corporation. Deposit £2 2s. Mr. J. Lord, M.I.C.E., borough engineer, Crossley Street, Halifax.

HEATON.—March 14.—For erecting mess-room, &c., at Heaton engine-sheds, for the North-Eastern Railway Co. Mr. A. Pollard, the company's architect, Irving House, Westgate Road, Newcastle-on-Tyne.

HINDERWELL.—March 12.—For building thirty-six houses, in pairs and groups of four, at Staithes Lane End, Staithes, also for making roads, sewers, concrete walls and steps, &c. Messrs. French and Wilkins, architects, Flowergate, Whitby.

HOLLOWAY.—March 8.—For erection of three pairs of type A and two pairs of type B houses, with the necessary drainage, fencing, &c., at Holloway, near Matlock, for the Belper Rural District Council. Mr. J. B. Mason, architect, Duffield.

HORSFORTH.—For bricklayer contracts in respect of twenty-two scullery houses to be erected on the Cragg Hill site at Horsforth. Messrs. G. H. Shipley and W. Broadbent, joint architects, 12 Park Lane, Leeds.

HOUNSLOW.—March 15.—For erection of two pairs of cottages at Jersey Road, Lampton, near Hounslow, for the Middlesex County Council. Deposit £2. Mr. A. Dryland, M.I.C.E., county engineer, Middlesex Guildhall, Westminster, S.W. 1.

KINGSLERE.—March 12.—For erection of four houses at The Mount, East Woodhay, also for six houses at Inhurst, Baughurst, for the Kingsclere Rural District Council. Deposit £1 1s. Mr. W. H. Bell, architect, the Market Place, Newbury.

LLANDINAM.—March 21.—For erection of six houses at Llandinam (well site), for the Newtown and Llandidloes Rural District Council. Mr. R. W. Davies, architect, Severn Square, Newtown.

LINCOLN.—March 8.—For additions and improvements to Branston Hall, near Lincoln, to fit up as a county sanatorium and for erection of an open-air school in connection therewith, for the Lindsey County Council. Deposit £2 2s. Messrs. Scorer and Gamble, F.R.I.B.A., architects, Bank Street Chambers, Lincoln.

LOCHABER.—March 7.—For mason, brick, joiner, plumber, slater, plaster and cement, and painter works in connection with the erection of fifty-four houses, being part of the first and the whole of the second section of the Lochaber District Housing Schemes. Mr. J. G. Falconer, architect, Fort William.

LOCHORE.—March 10.—For the excavator and brickwork, carpenter and joiner, plumber, plaster, slater, glazier and painter works of types E, F, G, and J—sixty houses in all—proposed to be erected at Manse Road site, Glencraig, Lochore, for the Kirkcaldy District Committee of the Fife County Council. Deposit £1 1s. Mr. W. Williamson, F.R.I.B.A., and Mr. G. B. Deas, joint architects, Royal Bank Buildings, Kirkcaldy, N.B.





EIGHT CHIMNEYS RECENTLY BUILT BY CUSTODIS, LTD.

inquiries invited.  
**CUSTODIS, LTD.,**  
119 Victoria Street,  
WESTMINSTER, S.W.1.  
TELEGRAMS—Custodomus Sowest.  
PHONE—779 Victoria.

**VENUS**

17 degrees  
Blacklead  
6B (Softest)  
to  
9H (Hardest)

For  
Architects  
& Builders

Of all Stationers &  
Drawing Office Suppliers

6d. each, 5/8 per dozen.

**PENCILS**

"VENUS" Lower Clapton Road E.5.

LOW PRICES. BEST WORK.



**THE BRILLIANT SIGN CO. Ltd.,**  
38 GRAY'S INN ROAD, LONDON.  
18 Mount Street, Manchester. 25 Cookridge Street, Leeds.

**Bedford Lemere & Co.**

*Architectural and Technical*  
**PHOTOGRAPHERS,**

147 Strand, London, W.C. (FIRST FLOOR)

PHOTOGRAPHS TAKEN & PROOFS DELIVERED  
SAME DAY. PRICE LISTS & ESTIMATES FREE.

ESTABLISHED 1862. TELEPHONE 4258 CENTRAL

**BEAUDEXOL**

SUPER WATER PAINT  
IN 40 STANDARD SHADES

PERMANENT DURABLE  
WASHABLE SANITARY

BEAUDEXOL and its allied products will be exhibited on Stand 49, Row D, at the International Building Trades Exhibition, Olympia, London, April 12 to 26 inclusive.

**BROWN & CRITCHLEY, LTD.,**  
LENZIE, SCOTLAND.

Telegrams: "Walpa, Lenzie." Telephone: 51 Kirkintilloch.



LONDON.—March 9.—For building works, being an extension of the electricity power-house at Millfields Road, for the Hackney Borough Council. Deposit £5 5s. The Borough Electrical Engineer, 306 Mare Street, Hackney, E. 8.

LONDON.—March 15.—For erection of seventy houses, either in one contract or, alternatively, for blocks of twenty, twenty and thirty thereof in three separate contracts, on land fronting Ealing and Whitestile Roads, Brentford, for the Urban District Council. Mr. W. J. Westlake, engineer and surveyor to the Council, Clifden House, Boston Road, Brentford.

LONDON.—March 23.—For extension of the Library at the British Museum, W.C. 1. Deposit £1 1s. The Director of Contracts, H.M. Office of Works, &c., Storey's Gate, Westminster, S.W. 1.

LOUGHBOROUGH.—March 7-18.—For (1) twelve houses on the Elms Grove site and (2) seven houses on the York Road site, for the Town Council. Contractors are invited to tender for either section, or both, but the committee reserve the right of accepting a tender for any number of houses they may think fit. Send names and £1 1s. deposit by March 7 to Messrs. A. E. King and Co., architects and surveyors, 19 Baxter Gate, Loughborough.

MANCHESTER.—March 10.—For the following work at their Bradford Road station, for the Gas Committee: Contract No. 16—Construction and erection of a steel-framed purifier house and foundations. Contract No. 17—Construction and erection of purifiers, with connections, valves and overhead lifting apparatus. Deposit £3 3s. Mr. G. W. Kaye, secretary, Gas Department, Town Hall, Manchester.

MIDDLETON.—March 9.—For erection (complete) of sixty-four houses, class A3, types A5 and A6, comprising sixteen blocks of four, in connection with the Boarshaw (South) housing scheme, for the Town Council. Messrs. T. A. Fitton and Son, architects, 19A Corporation Street, Manchester. The Borough Engineer, Town Hall, Middleton, Lancs.

MIDDLETON.—March 9.—For erection (complete) of thirty-six houses, class A3, types A1 and A2, comprising nine blocks of four, in connection with the Boarshaw (North) housing scheme. Mr. J. H. Sellers, architect, 78 King Street, Manchester. The Borough Engineer, Town Hall, Middleton, Lancs.

NORTHWOOD.—March 9.—For erection of (1) thirty-six houses for the working classes at Northwood; (2) fifty-five houses for the working classes at Eastcote, for the Ruislip-Northwood Urban District Council. Mr. E. R. Abbott, clerk, Council Offices, Northwood, Middlesex, or Messrs. A. & J. Soutar, 8 King William Street, Strand, London.

NORTON.—March 17.—For erection of 226 houses on land at Norton known as the Blue Hall Farm site, for the Stockton Town Council. Deposit £3 3s. The Housing Architect, 90 High Street, Stockton-on-Tees.

PERRAN-AR-WORTHAL.—March 10.—For alterations and hot-water supply at Churchtown Farm, for Mr. E. Tinney. Mr. A. J. Cornelius, F.S.A., architect, Truro.

RAMSEY.—March 12.—For erection of two lavatories in Ramsey, for the Ramsey Town Commissioners. Messrs. G. Kay and Sons, architects, 22 Athol Street, Douglas.

RINGWOOD.—March 11.—For erection of twenty-six "A" (non-parlour type) cottages, and 20 "B" (parlour type) cottages (in pairs), or of any less number, on the Parsonage Barn Lane site, for the Ringwood Rural District Council. Deposit £2 2s. Mr. E. H. H. Griffith, architect, High Street, Downton, Salisbury.

RYDE, I.W.—March 10.—For erection and completion of fourteen houses forming part of the Swanmore housing scheme, for the Ryde Town Council. Contractors may tender for the whole or part of the number of houses mentioned, the minimum number of houses which may be tendered for being one block of two. Deposit £2 2s. The Borough Surveyor, Town Hall, Ryde, I.W.

ST. COLUMB, CORNWALL.—March 8.—For erection of houses on the sites named, for the St. Columb Major Rural District Council. Builders may tender for any number of houses at per pair—viz., Cubert, 8 houses; St. Breock, 8 houses; Colan, 4 houses; Crantock, 8 houses; Padstow Rural, 6 houses; St. Merry, 8 houses; St. Issey, 8 houses; St. Wenn, 6 houses. Send applications by March 8 to Messrs. Andrew and Randell, architects, New Inn Chambers, St. Austell.

SOUTH ELSMALL, YORKS.—For alteration of certain premises at South Elmsall, near Pontefract, and for the provision at such premises of four water-closets, together with four galvanised-iron sanitary dust-bins, for the Hemsworth Rural District Council. Mr. W. T. Lynam, surveyor, District Council Offices, Hemsworth.

STAINLAND.—March 9.—For erection of thirty-six houses at Stainland, for the Stainland Urban District Council. Messrs. J. Berry and Sons, architects and surveyors, 3 Market Place, Huddersfield.

SWADLINCOTE.—March 12.—For erection and completion of eighty-four houses on three sites, either in one contract or alternatively for blocks of 54, 20, and 10, for the Swadlincote District Urban District Council. Send names and £2 2s. deposit by March 12 to Messrs. Baines and Provis, A.R.I.B.A. and M.S.A., architects, 22 Friar Lane, Leicester.

WALSALL.—March 16.—For alterations and additions to their generating station at Birchills, for the Electric Supply Committee. Deposit £3 3s. Mr. E. M. Lacey, 12 Victoria Street, Westminster, London, S.W. 1.

WIGAN.—March 14.—For erection of a war memorial (granite obelisk) in Mesnes Park. Deposit £1 1s. The Borough Engineer, King Street West, Wigan.

## TENDERS.

### BEDWAS.

For the erection of 122 houses at Trethomas and seventy-six houses at Machen, for the Bedwas and Machen Urban District Council.

	Average per house.
Sir Robert McAlpine & Sons, Westminster	£1,053 0 0
Walter Jones & Co., Westminster	984 0 0
Alban, Richards & Co.	956 0 0
Rogers & Davies, Ltd., Cardiff	953 0 0

### BURGHEAD.

For erection of three blocks of buildings at St. Athans, Burghead, for the Burghead housing scheme. Mr. R. R. Pratt, architect, Elgin.

#### Accepted tenders.

Miller Bros., Hopeman, mason	£2,351 8 8
D. Ralph, Burghead, carpenter	874 10 0
J. Gordon, Burghead, plumber	672 7 3
J. Walker, Burghead, carpenter	658 9 0
J. Ross, Elgin, plaster	442 8 8
N. Masson, Hopeman, slater	292 15 0
Kintrea & Son, Elgin, painter	177 10 0

### LEICESTER.

For the erection of ninety-four houses on the Coleman Road Estate, for the City Council. Block I., Mr. A. J. Wood, A.R.I.B.A.; Block II., Messrs. Pick, Everard and Keay; Block III., Messrs. S. Harrison & Sons, architects.

#### Block I. (thirty-two houses).

W. M. Sharp & Sons, Ltd.*	£30,257 0 0
E. Coulson (withdrawn)	28,123 7 0

#### Block II. (thirty-two houses):

J. Ellingworth & Sons*	29,987 0 0
------------------------	------------

#### Block III (thirty houses).

G. W. Pratt*	26,809 0 0
--------------	------------

\* Provisionally accepted.

### LITHERLAND.

For the erection of a factory at Litherland, near Liverpool, for Messrs. Lewis, Ltd., Liverpool, Manchester and Birmingham. Messrs. G. de C. Fraser and Ainley, architects, 26 North John Street, Liverpool.

F. Hayes	£84,082 7 0
Sir R. McAlpine & Sons	81,000 0 0
W. Jones & Sons	80,486 0 0
H. E. B. Greene & Co.	79,000 0 0
Travis & Co.	78,175 0 0
J. Henshaw & Sons	77,953 0 0
R. Costain & Sons	77,650 0 0
R. Carlyle & Co., Ltd.	76,497 0 0
Smith & Briggs	76,000 0 0
J. Tyson	75,897 0 0
J. Gerrard & Sons	75,500 0 0
W. Thornton & Sons	74,850 0 0
W. Tomkinson & Sons	74,477 0 0
E. Burns & Sons	74,477 0 0
Unit Reinforcement Construction Co.	73,960 0 0
F. Mitchell & Son, Ltd.	73,759 19 4
I. Dilworth & Sons	73,120 0 0
W. Hall & Son, Ltd.	72,000 0 0
W. E. TYSONS, LTD., Liverpool (accepted)	71,516 0 0

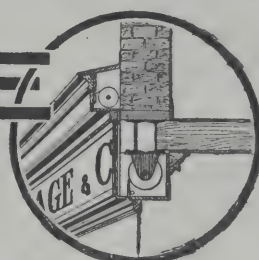


SHOP FRONTS  
IN WOOD OR  
METAL FOR  
EVERY TRADE.



**SAGE**

SHUTTERS  
in Wood or Steel  
SUNBLINDS.



ARCHITECTS'  
DESIGNS  
CAREFULLY  
CARRIED OUT.

The following are a few of the progressive firms who have installed Sage Shopfronts and Fittings: Messrs. Harrod's Ltd.; Dickens & Jones; Wm. Whiteleys Ltd.; Boots Ltd.; Robinson & Cleaver Ltd.; Lafayette; Hope Bros. Ltd.; Jones & Higgins Ltd.

**FREDK. SAGE & CO. LTD. 58-62 Gray's Inn Road, London, W.C. 1.**

## THE ARCHITECT.

### SUBSCRIBER'S ORDER.

SUBSCRIPTIONS PAYABLE IN ADVANCE.

To the Publisher of THE ARCHITECT,

6-11 IMPERIAL BUILDINGS, LUDGATE CIRCUS, LONDON, E.C. 4.

Please forward a copy of this Journal weekly till further orders, and receive in payment.

Name .....

Address .....

Date .....

One Copy Weekly, Post Free, for a Year, 27/6; Six Months, 14/-. .

Cheques and Post Office Orders to be made payable to

GILBERT WOOD & CO. Ltd., 6-11 IMPERIAL BUILDINGS, LUDGATE CIRCUS, E.C. 4.  
Telephone No.—Holborn 4725.

# Impervious Concrete.

## These Unique Products

Also Synchronise the  
requirements of the  
Concrete Age

### AURORA

A Really Washable Dis-  
temper ready for use

### RENCRETE

For External Weather-  
proof Decoration

### EVEROK

For Weatherproofing  
existing cement and  
concrete

### QUELLE

For Flameproofing  
Timber, Fibreboard, etc.



Patent No. 141113

For the first time in the history of Concrete Construction Colloidal Silicate and Calcium Chloride have been successfully used in conjunction with each other for PERMANENTLY PROOFING CONCRETE against the penetration of water, oils, acids and alkalis, by acting chemically upon the PORTLAND CEMENT, etc.

### A VERY IMPARTIAL OPINION

"From enquiry and observation we are of the opinion that the claims of 'NOVOID' for hardening concrete and rendering it water and oil proof can be substantiated." — The Concrete Utilities Bureau.

Write for Booklet "The Supreme Test"

Name and Address of Nearest Wholesale Distributor from Sole Manufacturers :

**The Torbay & Dart Paint Co. Ltd.,**

26-28 BILLITER STREET, LONDON, E.C. 3

# THE ARCHITECT

FOUNDED 1869.

Incorporating "The Contract Reporter," 1885.  
 "The Builder's Reporter and Engineering Times."  
 "The Building Trade," 1913.

FRIDAY, MARCH 11, 1921.

Owing to the increasing demand for back numbers we are compelled to give the following notice:—  
 All numbers for the past twelve months 9d. each, previous to that date 1s. each.

## TENDERS, &c.

As great disappointment is frequently expressed at the non-appearance of Contracts Open, Tenders, &c., it is particularly requested that information of this description be forwarded to the Office, Imperial Buildings, Ludgate Circus, London, E.C., not later than 2 P.M. on Wednesdays.

## CONTRACTS OPEN.

**ABERFAN.**—March 21.—For the erection of ten pairs of houses at Aberfan, for the Merthyr Corporation. The Borough Architect, Town Hall, Merthyr Tydfil.

**ADWICK-LE-STREET.**—March 18.—The West Riding Education Committee invite whole tenders for the following works:—Carcroft Park Lane Council school. Erection of brick cemented tank for storage of water. The West Riding Education Architect, County Hall, Wakefield.

**BENGWORTH.**—April 6.—For erection of sixty-eight houses, with their appurtenances, on the Council's site near King's Road, Bengeworth, Evesham, for the Evesham Town Council. Deposit £2 2s. Mr. H. E. Dicks, M.S.A., architect, Evesham.

**BOGNOR.**—March 25.—For the erection of twenty-eight houses under the State-aided housing scheme, in Linden Avenue, for the Urban District Council. Builders may tender for part only of the total number of blocks of houses to be erected. Deposit £2 2s. Mr. O. A. Bridges, L.R.I.B.A., M.R.S.I., surveyor, Council Offices, Bognor.

**BLACKWELL.**—March 22.—For erection of 700 houses of various types in the parishes of Blackwell, South Normanton, Tibshelf, Shirebrook and Pinxton, for the Blackwell Rural District Council. Contractors may tender for the whole or for groups of ten, twenty, or more houses. Mr. Frank P. Cook, architect, Leeming Street, Mansfield.

**BLAYDON.**—March 24.—For erection of the single-storied superstructure at Blaydon Secondary School in a semi-permanent or light form of construction, for the Durham County Council. Send application by March 24 to Mr. F. Willey, F.R.I.B.A., 34 Old Elvet, Durham.

**BRIDGWATER.**—For the renovation of the school clinic, 40 High Street, and the isolation hospital, at the docks, for the Bridgwater Town Council. The Municipal Offices, High Street, Bridgwater.

**BRIGHTLINGSEA.**—March 16.—For the construction of a public convenience in Victoria Place, for the Urban District Council. Deposit 10s. Mr. W. I. Osborn, clerk, Victoria Place, Brightlingsea, Essex.

**BUCKFASTLEIGH, DEVON.**—March 31.—For erection of seventeen houses, in blocks of four and five, on Glover's Park, for the Urban District Council. Deposit £2 2s. Mr. W. A. Vercoe, architect, Sun Buildings, Plymouth; or Mr. Lionel Williams, surveyor, Buckfastleigh.

**CAMPDEN.**—March 19.—For erection and completion of thirty cottages at Mickleton, six at Quinton, and six at Admington, for the Campden Rural District Council. Mr. W. L. Lissaman, M.S.A., architect, Broadway, Worcs.

**CARDIFF.**—March 16.—For the following works, subject to usual general conditions, for the Glamorgan County Council:—(1) Three Crosses Council School—new casement windows; (2) Abergwynfi Council School—repairs at boys' and girls' departments; (3) Alltwn mixed Council School—making up Approach Road; (4) Glyn-Neath infants' Council School—laying new floors; (5) Pontllw Council School—repairs and coal-place; (6) Cefn Cribbwr mixed

Council School—constructing partition to form corridor; (7) Miskin School house—painting internally and externally during Easter holidays. The Glamorgan County Hall, Cardiff.

**CHIPPING SODBURY.**—March 14.—For the following works for the Chipping Sodbury Rural District Council:—Erection of eight houses on the Pucklechurch housing site; erection of fourteen houses on the Stoke Gifford housing site, and lay-out work; erection of eight houses on the Hawkesbury housing site; also erection of sixty houses on the Filton housing site. Deposit £1 1s. for each site. The Housing Architect's Office, Chipping Sodbury.

**DUMBARTON.**—For alterations at new County Council offices, College Street, for the Dumbarton County Council, viz.—(1) Mason work; (2) joiner work; (3) plumber work; (4) plaster work; (5) painter work; (6) electric lighting; (7) heating. Mr. J. Weekes, architect, 201 Bath Street, Glasgow.

**DUNDEE.**—March 25.—For the execution of the following works as required at extensions to Docks sub-station (near King William Dock), Dundee, for the Electricity Department, viz.:—slater work, patent glazing and plumber work (separate contracts). Mr. H. Richardson, general manager and engineer, Caroline Port, Generating Station, Dundee.

**EARBY.**—March 15.—For erection of the Earby Urban District War Memorial. Send names by March 15 to Mr. W. A. Quarmby, architect, Imperial Chambers, Grimshaw Street, Burnley.

**FAVERSHAM.**—March 21.—For erection of eight houses at Whitstable Road, for the Town Council. Mr. S. P. Andrews, borough surveyor, 20 West Street, Faversham.

**GATESHEAD.**—For erection of bakery at Gateshead. Architect's Department, C.W.S., West Blandford Street, Newcastle.

**GLASGOW.**—March 18.—For the following works in extension for St. David's Public School, St. James's Road, Townhead, for the Glasgow Education Authority, viz.:—(1) Excavator, concrete, brick, and mason works; (2) steel work; (3) carpenter and joiner works; (4) steel sashes and casements; (5) glazier work; (6) ironmongery work; (7) stair railings; (8) smith work; (9) plumber work; (10) asphalt work; (11) slater and roughcast works; (12) plaster and concrete works; (13) tile work. Deposit £1 1s. for each schedule. The Education Offices (Property Department), 129 Bath Street, Glasgow.

**GLASGOW.**—March 19.—For the following works required in connection with erection of houses at Craigton, for the Corporation:—Digger, brick, and concrete works; carpenter, joiner, &c., work; slater and roughcast work; plaster and cement work; plumber work; painter work; glazier work. Mr. J. Lindsay, town clerk, City Chambers, Glasgow.

**GOLCAR.**—March 17.—For the various works required in erection of sixteen houses at Darby's Field, Leymoor, for the Urban District Council. Messrs. Lunn & Kaye, architects, Milnsbridge.

**GRANTHAM.**—March 15.—For alterations and additions to the Ministry of Pensions Office, Harrowby Camp, Grantham. Deposit £1 1s. The Post Office, Grantham, or the Director of Contracts, H.M. Office of Works, &c., Storey's Gate, Westminster, S.W. 1.

**GUILDFORD.**—March 22.—For erection of houses in connection with the Council's housing schemes as follows, for the Guildford Rural District Council:—Parish of Albury, two sites ten houses; parish of Godalming Rural (South), two sites eight houses; parish of Compton, one site four houses; parish of Shere, four sites forty-two houses. Deposit £2 2s. Mr. J. H. Norris, architect, 51 High Street, Guildford.

**HEATON.**—March 14.—For erecting mess-room, &c., at Heaton engine-sheds, for the North-Eastern Railway Co. Mr. A. Pollard, the company's architect, Irving House, Westgate Road, Newcastle-on-Tyne.

**HOUNSLOW.**—March 15.—For erection of two pairs of cottages at Jersey Road, Lampton, near Hounslow, for the Middlesex County Council. Deposit £2. Mr. A. Dryland, M.I.C.E., county engineer, Middlesex Guildhall, Westminster, S.W. 1.

**IPSWICH.**—March 17.—For erection of twenty bungalows on the racecourse site. Deposit £1 1s. Mr. E. Y. Harrison, M.I.C.E., borough engineer and surveyor, Town Hall, Ipswich.

**KIRK SANDALL, YORKS.**—March 18.—The West Riding Education Committee invite whole tenders for the following works:—Kirk Sandall temporary Council school. Erection and adaptation of two Army huts. The West Riding Education Architect, County Hall, Wakefield.



SPECIFY  
**THE MOST EFFICIENT**  
**VAUGHAN'S**  
**PURE BITUMEN**  
**DAMP-PROOF COURSES**

Made from Highest-Grade Materials.  
Extensively specified for Important  
Contracts, Housing Schemes, etc.

**ROOFING FELTS**

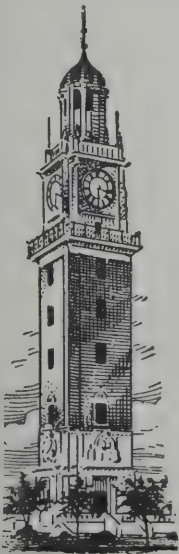
- "REXOID"** SELF-FINISHED BITUMEN ROOFING.
- "DUREX"** SMOOTH, FLEXIBLE FELT FOR ROOFING AND SARKING.
- "DURITE"** SUPERIOR BITUMEN UNDERSLATING, Etc.

For Samples, etc., apply to Manufacturers :  
**H. R. VAUGHAN & CO. Ltd.,**  
(Dept. A) Works : **GATESHEAD-ON-TYNE.**  
**Preston, Lancs, and Bishop Auckland.**

*Why Not Set the  
Time Standard  
for your District?*

A well-designed Clock adds a useful distinction to almost any big building, and, if it is really reliable, it soon becomes recognised as setting standard time for the locality.

Gillett & Johnston Clocks are suitable for Churches, Schools, Town Halls, Club Houses, Mansions, Estates, Stations or Shops—or are specially designed for special purposes.



All are made from start to finish (including chimes) in our Croydon workshops. They embody a continuous tradition of good craftsmanship since 1844.

Amongst our famous Clocks are those at The Law Courts, Southwark Cathedral, St. James' Palace, London; Hampton Court Palace, Manchester and Bradford Town Halls — Pekin, Pietermaritzburg, Buenos Ayres, Sydney and Toronto.

Illustration shows Buenos Ayres Memorial Clock: Hour Bell, 6 tons; Dials, 14 feet diameter.

For estimates and any information write:

**Gillett & Johnston,**  
**Croydon.**

LOW PRICES. BEST WORK.



**THE BRILLIANT SIGN CO. Ltd.,**  
**38 GRAY'S INN ROAD, LONDON.**  
18 Mount Street, Manchester. 25 Cookridge Street, Leeds.

**WHY BUY FOREIGN PENCILS?**

**WOLFF'S**  
**Royal Sovereign**  
PENCILS ARE BRITISH MADE

The finest Pencil in the World for Architects, Draughtsmen, and General use because of its smoothness and great durability. Made in all degrees by **THE ROYAL SOVEREIGN PENCIL CO. LTD.,** Falcon Pencil Works, Battersea, S.W. Famous over 100 years. By appointment to H.M. the King. Price 6d. each. Sold by all Stationers.



Platers' Shed at Large Shipbuilding Yard, coated with "Bitumastic" Solution.

**"BITUMASTIC"**  
Regd. Trade Mark.

**Lengthens Life of Steel and Iron Structures by Preventing Rust.**

It lasts longer, dries quicker, goes much further, and costs less than oil paints. Although hitherto obtainable in Black only; Red, Brown, and Green shades can now be supplied possessing the lasting qualities of the Black, with the additional advantage of permanent colour.

**WAILES DOVE BITUMASTIC LTD.,**  
**NEWCASTLE-ON-TYNE, London, Liverpool, Glasgow, Leeds, Manchester, Birmingham, Hull, Cardiff, Dublin, New York, etc.**

Telegrams: "Bitumastic." Telephones in Every Office.



**LADYBANK.**—March 23.—For the erection of a new post office at Ladybank. Tenders are required for the whole work, and not for separate trades. Deposit £1 1s. H.M. Office of Works, Parliament Square, Edinburgh.

**LINWOOD, RENFREW.**—March 21.—For the excavator and brick, joiner, slater, plumber, plaster, and painter works in connection with the erection of twenty-three blocks of cottages. Mr. W. McClure, district clerk, Mansion House, Greenock; or Mr. A. Robertson, architect, County Buildings, Paisley.

**LLANDINAM.**—March 21.—For erection of six houses at Llandinam (well site), for the Newtown and Llandidloes Rural District Council. Mr. R. W. Davies, architect, Severn Square, Newtown.

**LONDON.**—March 15.—For erection of seventy houses, either in one contract or, alternatively, for blocks of twenty, twenty and thirty thereof in three separate contracts, on land fronting Ealing and Whitestile Roads, Brentford, for the Urban District Council. Mr. W. J. Westlake, engineer and surveyor to the Council, Clifden House, Boston Road, Brentford.

**LONDON.**—March 23.—For extension of the Library at the British Museum, W.C. 1. Deposit £1 1s. The Director of Contracts, H.M. Office of Works, &c., Storey's Gate, Westminster, S.W. 1.

**LONDON.**—March 22.—For excavations, foundations, &c., for the new spirit museum, South Kensington, S.W. Deposit £1 1s. The Director of Contracts, H.M. Office of Works, &c., Storey's Gate, Westminster, S.W. 1.

**LONDON.**—March 16.—For supply and delivery of material for, and the performance of the following works, at their electricity department, for the Hammersmith Borough Council, viz.:—(a) Erection of an overhead coal conveyor, (b) erection of a brick chimney shaft, (c) re-plating, with steel sheeting, of coal bunkers. In the case of (b) the Council will be prepared to consider alternative offers for a reinforced concrete chimney. Mr. G. G. Bell, borough electrical engineer, Electricity Works, 85 Fulham Palace Road, W. 6.

**LUDDENDEN FOOT.**—March 21.—For works in connection with a monument at Bar Wood, for the Luddenden Foot War Memorial Committee. The District Council's Surveyor, Council Offices, Luddenden Foot.

**MEIFOD.**—March 23.—For erection of four houses at Meifod, for the Llanfyllin Rural District Council. Mr. R. A. Jones, architect, Bryn Drew, Llanfyllin.

**NORTH WALSHAM, NORFOLK.**—March 26.—For erection of four pairs of dwelling-houses on Upper Station Road, for the Urban District Council. Deposit £1. Mr. B. P. Gaymer, A.R.I.B.A., architect, Birchwood, North Walsham.

**NORTON.**—March 17.—For erection of 226 houses on land at Norton known as the Blue Hall Farm site, for the Stockton Town Council. Deposit £3 3s. The Housing Architect, 90 High Street, Stockton-on-Tees.

**PRESTON.**—April 2.—For erection of four houses and farm buildings at Manor Farm, Preston, near Beverley, for the East Riding of Yorkshire County Council. The County Land Agent, County Hall, Beverley.

**RADCLIFFE.**—March 31.—For the stonework and other fencing required in enclosing the site of the monument, for the Memorial Committee. Mr. W. L. Rothwell, engineer and surveyor, Council Offices, Radcliffe.

**RUNCORN.**—March 21.—For the erection of twelve houses of various types (together with drains and fencing in connection with same) on the Stockton Heath and Walton inferior site, for the Runcorn Rural District Council. Deposit £2 2s. Messrs. Wright & Hamlyn, architects, Sankey Street Chambers, Warrington.

**SKELMANTHORPE.**—March 28.—For the construction of fifteen houses in Commercial Road, for the Urban District Council. Messrs. J. Berry & Sons, architects and surveyors, 3 Market Place, Huddersfield.

**SOUTHEND-ON-SEA.**—March 14.—For the erection and completion of extension to engine house at the main generating station, Corporation electricity works, for the Corporation. Deposit £2 2s. Mr. R. H. Dyer, borough engineer, Municipal Buildings, Southend-on-Sea.

**SOUTHMOLTON.**—March 19.—For erection of workmen's dwellings on the Parsonage Lane site, for the Town Council. Deposit £2 2s. Mr. J. C. Southcombe, architect, Cross Street, Barnstaple.

**ULVERSTON.**—March 23.—For alterations to the Temperance Hall and Hotel, for the trustees. Mr. H. T. Fowler, A.R.I.B.A., architect and surveyor, 6 Cornwallis Street, Barrow-in-Furness.

**WALLINGFORD.**—April 6.—For the erection of four brick cottages, each at Long Whittenham and Brightwell, Berks, for the Wallingford Rural District Council. The offices of

the Council, at 7 St. Martin's Street, Wallingford, and Messrs. Drower & Brighton, quantity surveyors, 28 Victoria Street, Westminster, London, S.W. 1.

**WALSALL.**—March 16.—For alterations and additions to their generating station at Birchills, for the Electric Supply Committee. Deposit £3 3s. Mr. E. M. Lacey, 12 Victoria Street, Westminster, London, S.W. 1.

**WESTHAMPNETT, SUSSEX.**—March 22.—The Westhampnett Rural District Council invite separate tenders for erection of houses on the following sites, viz.—(1) Four houses on site at East Wittering, in the Parish of East Wittering; (2) six houses on site at Nyetimber, in the Parish of Pagham. Deposit £1 1s. Mr. J. Dovaston, A.R.I.B.A., M.C.I., architect, Pallant House, Chichester.

**WIGAN.**—March 14.—For erection of a war memorial (granite obelisk) in Mesnes Park. Deposit £1 1s. The Borough Engineer, King Street West, Wigan.

**WINKFIELD, BERKS.**—For portion of the housing scheme—namely, for the erection of eight houses on the site of the old football field, Chavey Down, Winkfield, for the Easthampstead Rural District Council. The houses are to be built in pairs of two types, and builders may submit tenders for one or more pairs as desired. Messrs. Perkins & Brocklehurst, architects, Raymond House, 32 Theobald's Road, Gray's Inn, W.C. 1. Send application and £2 2s. deposit to Mr. C. B. Wilson, clerk, Council Offices, Bracknell, Berks.

## TENDERS.

### DITCHAMPTON (WILTS).

For the erection of fifteen houses at Ditchampton, for the Wilton Rural District Council.

A. E. Lailey . . . . .	£18,000 0 0
F. Brazier . . . . .	17,131 0 0
R. Moulding . . . . .	17,007 0 0
Cooper Bros. . . . .	15,250 0 0
Wort & Way . . . . .	14,350 0 0
Jenkins & Son . . . . .	13,893 0 0
F. Hand & Son . . . . .	13,293 0 0

### GRAYS (ESSEX).

For the construction, delivery, and erection of four crude-oil engines, C.C. dynamos, centrifugal pumps, screens, travelling overhead cranes, and other machinery, for the Thurrock, Grays, and Tilbury Joint Sewerage Board. Messrs. J. Taylor & Sons, engineers, 36 Victoria Street, Westminster, S.W. 1.

#### Contract No. 6—Pumping Machinery.

Crossley Brothers, Ltd. . . . .	£32,360 0 0
Mirrlees, Bickerton & Day, Ltd. . . . .	30,880 0 0
Ruston-Hornsby, Ltd. . . . .	30,000 0 0
The Campbell Gas Engine Co., Ltd. . . . .	28,100 0 0
Vickers-Petters, Ltd. . . . .	27,500 0 0
Crompton & Co., Ltd. . . . .	26,371 0 0
Edmundsons' Electricity Corporation, Ltd. . . . .	26,264 0 0
W. H. ALLEN, SONS & CO., LTD. (accepted) . . . . .	24,025 0 0

### LONDON.

For alterations at 397 and 399 Mare Street, Hackney. Mr. C. H. Isaacs, Licentiate R.I.B.A., 26 Ludgate-Hill, E.C. 4.

J. Elliman & Co. . . . .	£2,780 0 0
S. Haskins & Sons . . . . .	2,770 0 0
G. E. Everitt & Sons, Ltd. . . . .	2,601 0 0
The Antill Construction Co. . . . .	2,330 0 0
FRANKS & SIMONS, 354 Mile End Road, E. (recommended) . . . . .	2,012 0 0

### ROMFORD.

For the erection of ten houses in the parish of Noak Hill, for the Romford Rural District Council.

Panels, Ltd. . . . .	£13,000 0 0
L. Lown & Co. . . . .	11,477 0 0
Lancaster & Co. . . . .	11,319 0 0
R. Woollaston & Co. . . . .	11,257 15 0
R. Young's Construction Co., Ltd. . . . .	10,415 0 0
H. J. Finch & Son . . . . .	10,107 14 4
E. A. Rooome & Co., Ltd. . . . .	10,093 0 0
Pavitt Bros. . . . .	9,596 0 0
BAKER, HAMMOND & LAVER, Rainham, Essex (recommended) . . . . .	8,765 0 0



**DURESCO** WASHABLE WATER PAINT

*The FIRST in the Field. The FOREMOST ever since.*

FORTY Years' Experience has stamped

**DURESCO**

as being the PREMIER Water Paint

Sole Manufacturers: **The Silicate Paint Co. J. B. ORR & Co. Ltd.**  
CHARLTON, LONDON, S.E.



## MODERN PLANT FOR DISPOSAL

*Surplus Mechanical and Chemical Plant, the property of Nobel Industries, Limited, is available for disposal. The list includes Steam, Gas & Oil Engines; Locomotives, Boilers, Air Compressors, Fans & Heaters, Pumps, Shafting, Pulleys and Weighing Machines. Also Buildings of Steel, Wood & Brick*

Descriptive Pamphlets will be sent with  
**FULL PARTICULARS ON APPLICATION**  
*Write or Telephone—Victoria 4299*

**NOBEL INDUSTRIES LTD.**  
PLANT SALES DEPARTMENT  
5 Palace Street, LONDON, S.W. 1



## THE LONDON ELECTRIC WIRE COMPANY and SMITHS LIMITED

**The London Electric Wire Co. and Smiths LIMITED,**

Playhouse Yard, Golden Lane, LONDON, E.C. 1

FOR

RUBBER INSULATED WIRES and CABLES

ARMATURE and MAGNET WIRES and STRIPS

ENAMEL INSULATED WIRES

HIGH RESISTANCE WIRES

TELEPHONE CABLES, WIRES and CORDS

AERIAL CABLES

FLEXIBLE LIGHTING CORDS

BELL WIRES FUSE WIRES

DYNAMO BRUSHES and ARC

LAMP and BRUSH FLEXIBLES

**Frederick Smith & Co.**

(Incorporated in the London Electric Wire Co. and Smiths Limited),

Anaconda Works, SALFORD, MANCHESTER

FOR

HIGH CONDUCTIVITY COPPER WIRE and STRIP  
HARD DRAWN H.C. COPPER LINE WIRE and TROLLEY WIRE

SPECIAL NON-FOULING SECTIONS  
PHOSPHOR BRONZE SPRING WIRE

BRONZE TROLLEY WIRE  
Maximum Tensile Strain and Durability  
SILICIUM BRONZE WIRE

Telephone: Clerkenwell 1388 & 9.  
Telegrams: "Electric, London."

Telephone: Manchester Central 4640.  
Telegrams: "Anaconda, Manchester."

Contractors to H.M. Government and to all the leading Electric Light and Telephone Companies.

Price Lists and Special Quotations on application.

CODES: { A B C 5th Edition. BENTLEY'S, WESTERN UNION (Univ. and 5-Letter), and MARCONI.



# THE ARCHITECT

FOUNDED 1869.

Incorporating "The Contract Reporter," 1885.  
"The Builder's Reporter and Engineering Times,"  
"The Building Trade," 1913.

FRIDAY, MARCH 18, 1921.

Owing to the increasing demand for back numbers we are compelled to give the following notice:—  
All numbers for the past twelve months 9d. each, previous to that date 1s. each.

## TENDERS, &c.

\*. As great disappointment is frequently expressed at the non-appearance of Contracts Open, Tenders, &c., it is particularly requested that information of this description be forwarded to the Office, Imperial Buildings, Ludgate Circus, London, E.C., not later than 2 P.M. on Wednesdays.

## NOTICE.

Next Friday being Good Friday, THE ARCHITECT will be published on Thursday. All advertisements intended for this Number must reach the Office not later than 9 A.M. on Wednesday, March 23.  
No alteration of advertisement copy can be allowed after Saturday morning, March 19.

## CONTRACTS OPEN.

ABERFAN.—March 21.—For the erection of ten pairs of houses at Aberfan, for the Merthyr Corporation. The Borough Architect, Town Hall, Merthyr Tydfil.

ALDINGBOURNE.—March 21.—For erection of sanitary block, boiler-house, chimney-shaft, and incidental work in conversion of Aldingbourne House into a hospital, for the West Sussex County Council. Mr. H. P. Roberts, F.R.I.B.A., county architect, Westgate, Chichester.

BLACKWELL.—March 22.—For erection of 700 houses of various types in the parishes of Blackwell, South Normanton, Tibshelf, Shirebrook and Pinxton, for the Blackwell Rural District Council. Contractors may tender for the whole or for groups of ten, twenty, or more houses. Mr. Frank P. Cook, architect, Leeming Street, Mansfield.

BLAYDON.—March 24.—For erection of the single-storied superstructure at Blaydon Secondary School in a semi-permanent or light form of construction, for the Durham County Council. Send application by March 24 to Mr. F. Willey, F.R.I.B.A., 34 Old Elvet, Durham.

BOGNOR.—March 25.—For the erection of twenty-eight houses under the State-aided housing scheme, in Linden Avenue, for the Urban District Council. Builders may tender for part only of the total number of blocks of houses to be erected. Deposit £2 2s. Mr. O. A. Bridges, L.R.I.B.A., M.R.S.I., surveyor, Council Offices, Bognor.

BRADFORD.—March 24.—For the various works in erection of power-station (first portion), Bolton Road, for the Corporation. The City Architect, Town Hall, Bradford.

BRISTOL.—April 1.—For reconstruction of the single-floor transit shed, known as shed "I," on the east side of Avonmouth Dock, for the Docks Committee. Deposit £5. Mr. T. A. Peace, engineer, Engineer's Office, Avonmouth Docks, Bristol.

BUCKFASTLEIGH, DEVON.—March 31.—For erection of seventeen houses, in blocks of four and five, on Glover's Park, for the Urban District Council. Deposit £2 2s. Mr. W. A. Vercoe, architect, Sun Buildings, Plymouth; or Mr. Lionel Williams, surveyor, Buckfastleigh.

CARDIFF.—March 24.—For erection of an electrical sub-station and public shelter in Penylan Road, Roath Park, for the Corporation. Deposit £1 1s. Mr. E. J. Elford, M.I.C.E., city architect, City Hall.

CARMICHAEL.—March 23.—For mason work, joiner work, and plaster work in connection with the erection of thirty temporary houses on a site adjoining Ponfeigh Station

(Caledonian) in the Parish of Carmichael, County Lanark. Mr. A. W. Paterson, district clerk, Lanark.

CHESTER.—For the provision of labour and materials required in the construction of public conveniences and lavatories at the Little Roodee, for the Corporation. The City Engineer and Surveyor's Office, Town Hall.

CHESTERFIELD.—March 22.—For erection of forty-two houses (in four contracts) on the Boythorpe housing site, for the Corporation. Builders may tender for the whole of any contract. No. 1 Contract—11 houses in five blocks; No. 2 Contract—11 houses in five blocks; No. 3 Contract—8 houses in three blocks; No. 4 Contract—12 houses in four blocks. Messrs. Wilcockson and Cutts, architects, Knifesmith Gate, Chesterfield.

CONNAH'S QUAY.—March 31.—For the construction of roads and sewer work, and the erection of 156 houses, for the Urban District Council. The work may be tendered for as a complete scheme or for one section only of the following: (1) streets and sewer work for the whole site, 15,938 acres; (2) one section containing 34 houses; (3) one section containing 64 houses; (4) one section containing 58 houses. Deposit £3 3s. Mr. F. A. Roberts, M.S.A., architect, Mold.

COVEN, CANNOCK.—For erection of six pairs of A class houses at Coven, for the Cannock Rural District Council. The Director of Housing, Penkridge, Stafford.

DINAS CROSS.—April 2.—For erection of a vestry for the Tabor Baptist Church, Dinas Cross. Mr. J. T. J. Williams, architect, 10 Pendre, Cardigan.

DUNDEE.—March 25.—For the execution of the following works as required at extensions to Docks sub-station (near King William Dock), Dundee, for the Electricity Department, viz.:—slater work, patent glazing and plumber work (separate contracts). Mr. H. Richardson, general manager and engineer, Caroline Port, Generating Station, Dundee.

FAVERSHAM.—March 21.—For erection of eight houses at Whitstable Road, for the Town Council. Mr. S. P. Andrews, borough surveyor, 20 West Street, Faversham.

GLASGOW.—March 23.—For the following works required in connection with the proposed alterations on and additions to Mount Blow House, Dalmuir, for the Corporation, viz.: (1) Digger, brick, concrete, and steel works; (2) carpenter, joiner, glazier, and ironmongery works; (3) slater work; (4) plumber work; (5) plaster work; and (6) heating installation. The Office of Public Works, 64 Cochrane Street, Glasgow.

GLASGOW.—March 29.—For supply and erection of steel windows in connection with the extension of the Municipal Buildings, for the Corporation. Deposit £5. Messrs. Watson, Salmond & Gray, 242 West George Street, Glasgow.

GUILDFORD.—March 22.—For erection of houses in connection with the Council's housing schemes as follows, for the Guildford Rural District Council:—Parish of Albury, two sites ten houses; parish of Godalming Rural (South), two sites eight houses; parish of Compton, one site four houses; parish of Shere, four sites forty-two houses. Deposit £2 2s. Mr. J. H. Norris, architect, 51 High Street, Guildford.

HANHAM, GLOS.—March 26.—For erection of twenty-four houses, forming part of the Hanham housing scheme, for the Kingswood Urban District Council. The number may be increased to fifty. Contractors may tender for the whole or part of the number, the minimum number of houses being one block of two. Deposit £2 2s. The Surveyor, Council Offices, Kingswood.

KEIGHLEY.—March 24.—For the construction of new textile classroom and various alterations at the Technical Institute. Messrs. W. H. and A. Sugden, architects, North Street, Keighley.

KEYNSHAM.—For erection of working class dwellings, under the Council's housing scheme at Keynsham Parish site. Send names to Mr. John Bevan, architect, 36 Corn Street, Bristol.

LADYBANK.—March 23.—For the erection of a new post office at Ladybank. Tenders are required for the whole work, and not for separate trades. Deposit £1 1s. H.M. Office of Works, Parliament Square, Edinburgh.

LEICESTER.—April 5.—For erection of sixty houses, divided into ten contracts on the Narborough Road (Wyggeston Hospital site), for the Corporation. Builders may tender for any or all of the ten blocks. Mr. Walter Brand, A.R.I.B.A., 170 New Walk Leicester, and Mr. J. C. Baines, A.R.I.B.A., 22 Friar Lane, Leicester, associated architects. Send application and £1 1s. deposit by March 31 to Mr. E. G. Mawbey, M.Inst.C.E., city surveyor, Town Hall, Leicester.





EIGHT CHIMNEYS RECENTLY BUILT BY CUSTODIS, LTD.

quiries invited.

**CUSTODIS, LTD.,**

119 Victoria Street,  
WESTMINSTER, S.W.1

LE GRAMS—Custodomus Sowest.  
PHONE—779 Victoria.

# BEAUDEXOL

## SUPER WATER PAINT

### IN 40 STANDARD SHADES

**PERMANENT  
WASHABLE**

**DURABLE  
SANITARY**

■ ■ ■ ■

## ONE REASON FOR SPECIFYING BEAUDEXOL

The STANDARD SHADES as shown in our Tint Book are absolutely guaranteed and we also guarantee continuity of these.

■ ■ ■ ■

**BROWN & CRITCHLEY, LTD.,**  
LENZIE, SCOTLAND.

Telegrams: "Walpa, Lenzie."

Telephone: 51 Kirkintilloch.

LOW PRICES.

BEST WORK.



**THE BRILLIANT SIGN CO. Ltd.,**  
38 GRAY'S INN ROAD, LONDON.

18 Mount Street, Manchester.

25 Cookridge Street, Leeds.

# "PLASTERERS' HAIR"

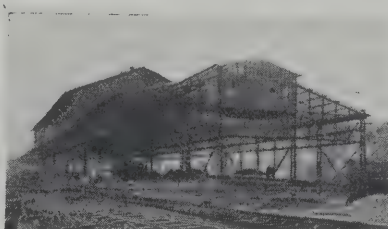
RELIABLE AND ECONOMICAL.

Our Hairs are Stocked by over 600 Builders' Merchants.

The Associated Wool Mills & Hair Manufacturers,  
Tottenham, Ltd.,

Telephone:  
Tottenham 1694.

London, N. 17.



Platers' Shed at Large  
Shipbuilding Yard,  
coated with  
"Bitumastic" Solution.

# "BITUMASTIC"

Regd. Trade Mark.

Lengthens Life of Steel and Iron  
Structures by Preventing Rust.

It lasts longer, dries quicker, goes much further, and costs less than oil paints. Although hitherto obtainable in Black only; Red, Brown, and Green shades can now be supplied possessing the lasting qualities of the Black, with the additional advantage of permanent colour.

**WAILES DOVE BITUMASTIC LTD.,**

NEWCASTLE-ON-TYNE, London, Liverpool, Glasgow, Leeds,  
Manchester, Birmingham, Hull, Cardiff, Dublin, New York, etc.

Telegrams: "Bitumastic."

Telephones in Every Office.



**LINWOOD, RENTREW.**—March 21.—For the excavator and brick, joiner, slater, plumber, plaster, and painter works in connection with the erection of twenty-three blocks of cottages. Mr. W. McClure, district clerk, Mansion House, Greenock; or Mr. A. Robertson, architect, County Buildings, Paisley.

**LLANDINAM.**—March 21.—For erection of six houses at Llandinam (well site), for the Newtown and Llanidloes Rural District Council. Mr. R. W. Davies, architect, Severn Square, Newtown.

**LONDON.**—March 23.—For extension of the Library at the British Museum, W.C. 1. Deposit £1 1s. The Director of Contracts, H.M. Office of Works, &c., Storey's Gate, Westminster, S.W. 1.

**LONDON.**—March 22.—For excavations, foundations, &c., for the new spirit museum, South Kensington, S.W. Deposit £1 1s. The Director of Contracts, H.M. Office of Works, &c., Storey's Gate, Westminster, S.W. 1.

**LONDON.**—March 21.—For erection of two blocks of two tenements each in Savona Street, Battersea, for the Battersea Borough Council. The Town Hall, Battersea.

**MEIFOD.**—March 23.—For erection of four houses at Meifod, for the Llanfyllin Rural District Council. Mr. R. A. Jones, architect, Bryn Drew, Llanfyllin.

**MEXBOROUGH.**—For the whole of the works required in the erection of an additional storey to the administrative block at Montagu Hospital, Mexborough. Deposit £1 1s. Mr. P. White, architect and surveyor, Estate Office, Mexborough.

**MITCHAM.**—March 21.—For erecting 160 houses on a site in London Road, Mitcham, for the Urban District Council. Send names and £2 deposit by March 21 to Mr. R. M. Chart, F.S.I., architect, Lower Green, Mitcham, and Union Bank Chambers, Croydon.

**NORTHALLERTON.**—March 28.—For erection of sale ring, concreting of yard, &c., for the directors of John Todd's Northallerton Store Stock Mart Company, Ltd. Mr. R. Robinson, secretary, Applegarth Mart, Northallerton.

**NORTH WALSHAM, NORFOLK.**—March 26.—For erection of four pairs of dwelling-houses on Upper Station Road, for the Urban District Council. Deposit £1. Mr. B. P. Gaymer, A.R.I.B.A., architect, Birchwood, North Walsham.

**PENGAM.**—March 30.—The Gellygaer Urban District Council invite lump-sum tenders for the following works on Gwerthonor Isaf Site, Pengam:—(1) Roads and sewers for 150 houses proposed on this site. The work includes excavation, filling, ballasting, and drainage, &c. (2) Erection and completion of 150 houses (in pairs of various types) on the above site. Deposit £2 2s. for each contract. Mr. P. Jones-Williams, architect, Council Offices, Hengoed.

**PORTSMOUTH.**—March 30.—For erection of a war memorial. Messrs. J. S. Gibson & Gordon, F.F.R.I.B.A., architects, 5 Old Bond Street, London, W. 1. Deposit £2 2s. The Mayor of Portsmouth, Town Hall, Portsmouth.

**PRESTONPANS.**—March 28.—For the following works in connection with the erection of thirty-six houses (three- and four-apartment cottages) at East Loan, for the Town Council, viz.: Excavator, brick and mason work; carpenter and joiner work; plumber work; tiler, slater, and rough cast work; plaster and cement work; painter work; glazier work; temporary buildings and fencing; formation of roads and drains. Messrs. R. & A. K. Smith, surveyors, 44 Queen Street, Edinburgh.

**QUEENBOROUGH.**—For erection of 130 houses on the main road in proximity to the railway station (S.E. and C.R.), for the Town Council. There are four types of houses, all houses being semi-detached, and tenders must be submitted for the whole contract. Deposit £5 5s. Mr. Marshall Harvey, architect, Station Street, Sittingbourne.

**RAMPSIDE.**—March 30.—For re-roofing and enlarging St. Michael's Church. Mr. H. T. Fowler, A.R.I.B.A., architect and surveyor, 6 Cornwallis Street, Barrow.

**RUGBY.**—April 5.—For erection of houses, for the Commissioners of His Majesty's Works, &c. Deposit £1 1s. The Borough Surveyor's Office, Rugby, or the Director of Contracts, H.M. Office of Works, &c., Storey's Gate, Westminster, S.W.

**RUNCORN.**—March 21.—For the erection of twelve houses of various types (together with drains and fencing in connection with same) on the Stockton Heath and Walton inferior site, for the Runcorn Rural District Council. Deposit £2 2s. Messrs. Wright & Hamlyn, architects, Sankey Street Chambers, Warrington.

**RYDE.**—March 29.—For erection and completion of thirty houses, forming the Swanmore housing scheme, for the

Borough Council. Tenders may be for whole or part of the houses. Deposit £2 2s. The Borough Surveyor, Town Hall, Ryde, Isle-of-Wight.

**SHEFFIELD.**—April 16.—For the following work required in erection and supply of building and plant for refuse disposal works at Bernard Road, for the Health Committee: Contract No. (1) erection of buildings, Sections 1, 2, and 3; (2) constructional ironwork; (3) reinforced concrete hoppers and bunkers; (4) chimney; (5) water-tube boilers; (6) mechanical stokers; (7) salvage and fuel recovery plant; (8) 40 h.p. loco for 4 ft. 8½ in. gauge, petrol, electric, or steam. Deposit £5 5s. Messrs. Mortimore, Lyon & Co., consulting engineers, 48 Mansfield Chambers, St. Ann's Square, Manchester, or Mr. J. A. Priestley, Cleansing Superintendent, Town Hall, Sheffield.

**SHERBURN HILL.**—For alterations to Sherburn Branch Stores, for the Sherburn Hill Co-operative Society, Ltd. Messrs. J. Walton Taylor & Son, architects, St. John Street, Grainger Street, West, Newcastle.

**SKELMANTHORPE.**—March 28.—For the construction of fifteen houses in Commercial Road, for the Urban District Council. Messrs. J. Berry & Sons, architects and surveyors, 3 Market Place, Huddersfield.

**ULVERSTON.**—March 23.—For alterations to the Temperance Hall and Hotel, for the trustees. Mr. H. T. Fowler, A.R.I.B.A., architect and surveyor, 6 Cornwallis Street, Barrow-in-Furness.

**WESTHAMNETT, SUSSEX.**—March 22.—The Westhamnett Rural District Council invite separate tenders for erection of houses on the following sites, viz.—(1) Four houses on site at East Wittering, in the Parish of East Wittering; (2) six houses on site at Nyetimber, in the Parish of Pagham. Deposit £1 1s. Mr. J. Dovaston, A.R.I.B.A., M.C.I., architect, Pallant House, Chichester.

## TENDERS.

### CROMER.

For the erection of a pair of parlour-type houses on the Bernard Road site, including sewerage, water supply, baths, w.c.'s and hot-water service, for the Urban District Council. Messrs. Buckingham & Berry, architects, Norwich.

T. Gill & Son	£2,160	0	0
J. Anderson & Son	2,100	0	0
Girling & Smith	2,000	0	0
F. R. Hipperson	1,975	0	0
H. Bullen	1,850	0	0
A. G. Brown	1,811	0	0

### DOVER.

For the construction of foundations for a new machine, for Electricity Committee.

T. D. Denne	£5,414	0	0
W. G. Grigg	3,324	0	0
G. Lewis & Sons	3,123	0	0
HAYWARD & PARAMOR (accepted)	2,558	0	0
G. Browning, 17½ per cent. on cost.			

### ILMINSTER (SOMERSET).

For the erection of thirty houses (twenty-six parlour and four non-parlour type) and works in lay-out, for the Urban District Council. Mr. A. J. Pictor, A.R.I.B.A., Bruton, Somerset.

#### HOUSES.

Relleen & Griffiths	£32,434	3	4
R. G. Spiller	30,545	0	0
A Poole & Co.	30,385	0	0
Coles Bros.	29,326	14	1
Bird & Pippard Ltd.	29,213	9	4
F. & E. Small	29,031	2	7
GUEST & GOODALL, LTD., Sunninghill, Ascot (recommended)	28,167	10	4

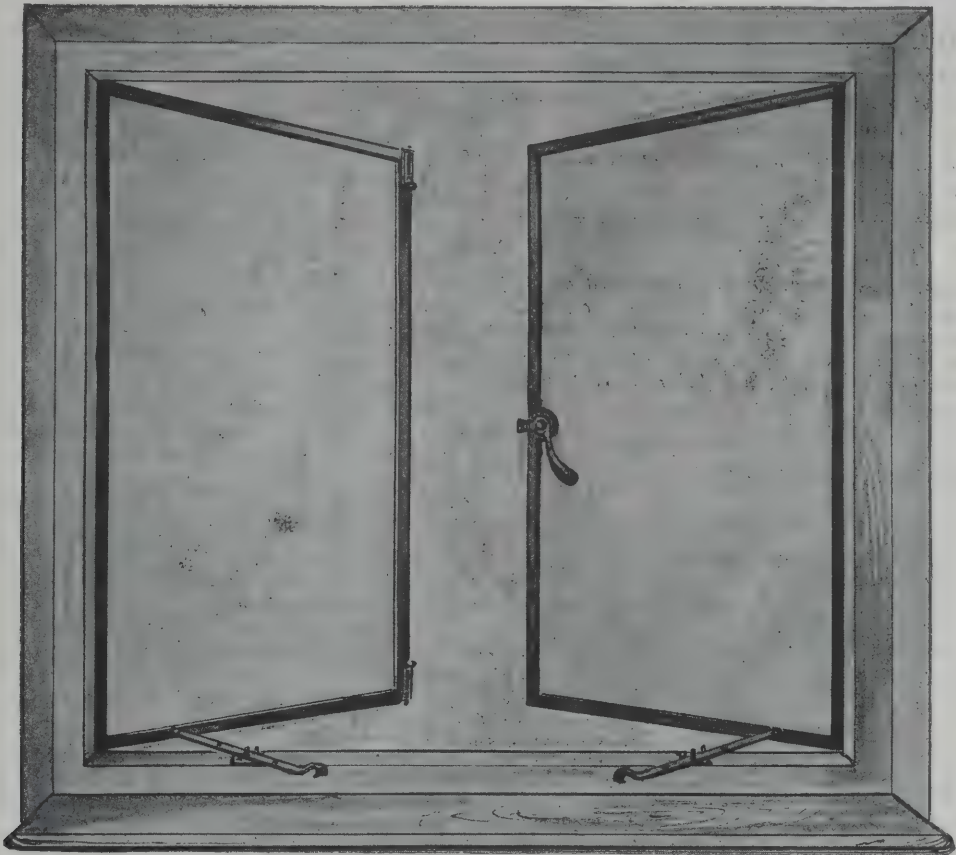
#### LAY-OUT.

Bird & Pippard, Ltd.	2,986	2	7
Coles Bros.	2,410	5	5
A. Poole & Co.	2,138	0	0
R. G. Spiller	2,104	0	0
F. & E. Small	1,881	4	8
GUEST & GOODALL, LTD. (recommended)	1,855	4	11
Relleen & Griffiths	1,726	12	3

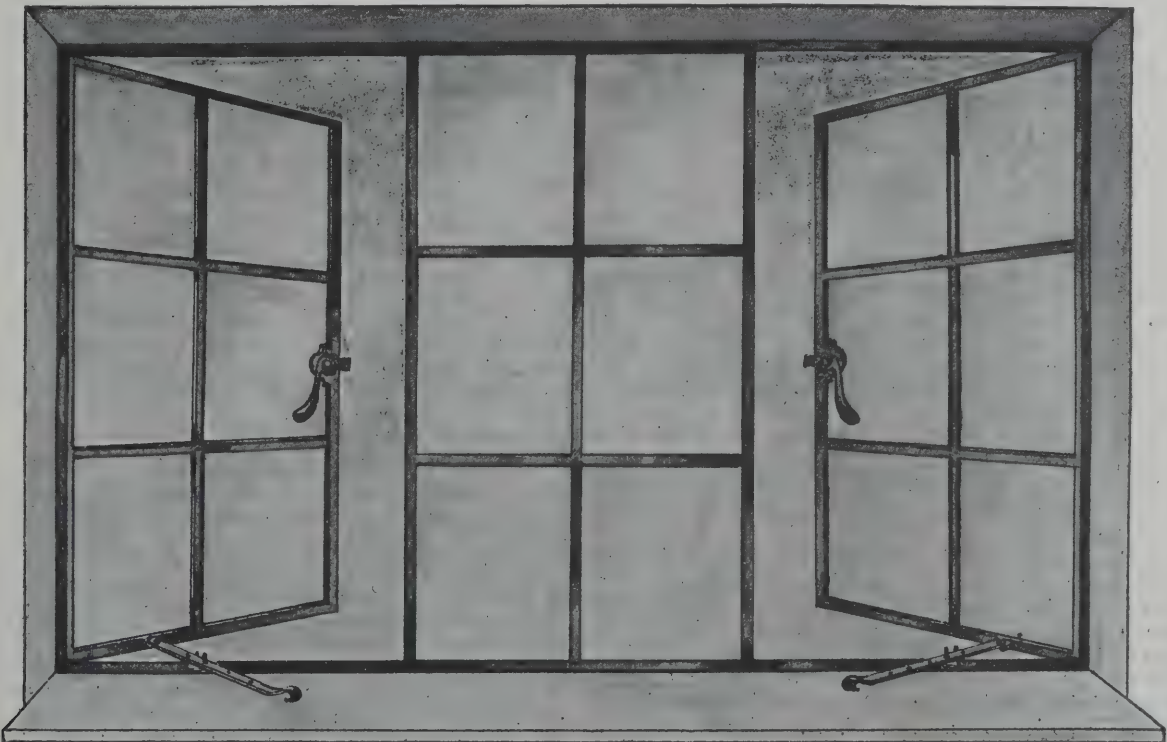


# JAMES GIBBONS, LTD.

ST. JOHN'S WORKS, WOLVERHAMPTON.



GIBBONS "WORKMAN'S" COTTAGE WINDOWS, with Side-Hung Casements to hang to wood frames.  
"All-Open" Type in large panes. Also made with small panes.  
All outside surfaces can be cleaned from inside.



GIBBONS "SIDE-HUNG" COTTAGE WINDOWS.

LONDON OFFICE: 15 and 16 FISHER STREET, SOUTHAMPTON ROW, W.C.1.



# THE ARCHITECT

FOUNDED 1869.

Incorporating "The Contract Reporter," 1885.  
"The Builder's Reporter and Engineering Times."  
"The Building Trade," 1913.

FRIDAY, MARCH 25, 1921.

Owing to the increasing demand for back numbers we are compelled to give the following notice:—  
All numbers for the past twelve months 9d. each, previous to that date 1s. each.

## TENDERS, &c.

\* \* As great disappointment is frequently expressed at the non-appearance of Contracts Open, Tenders, &c., it is particularly requested that information of this description be forwarded to the Office, Imperial Buildings, Ludgate Circus, London, E.C., not later than 2 P.M. on Wednesdays.

## CONTRACTS OPEN.

BENGWORTH.—April 6.—For erection of sixty-eight houses, with their appurtenances, on the Council's site near King's Road, Bengeworth, Evesham, for the Evesham Town Council. Deposit £2 2s. Mr. H. E. Dicks, M.S.A., architect, Evesham.

BLANTYRE.—March 28.—For the various works, digger and brick, joiner, glazier, slater, plumber, plaster and painter, in connection with the erection of 100 houses at Larkfield, Blantyre, for the District Committee of the Middle Ward, County of Lanark. Send application, by March 28, to Mr. P. C. Smith, Housing and Town Planning Department, District Offices, Hamilton.

BOGNOR.—March 25.—For the erection of twenty-eight houses under the State-aided housing scheme, in Linden Avenue, for the Urban District Council. Builders may tender for part only of the total number of blocks of houses to be erected. Deposit £2 2s. Mr. O. A. Bridges, L.R.I.B.A., M.R.S.I., surveyor, Council Offices, Bognor.

BRITON FERRY.—For the rebuilding of the Ship Tavern, for Mr. Evans Bevan, Neath. Mr. J. C. Rees, M.S.A., Parade Chambers, Neath.

BUCKFASTLEIGH, DEVON.—March 31.—For erection of seventeen houses, in blocks of four and five, on Glover's Park, for the Urban District Council. Deposit £2 2s. Mr. W. A. Vercoe, architect, Sun Buildings, Plymouth; or Mr. Lionel Williams, surveyor, Buckfastleigh.

CHINGFORD.—April 4.—For erection of thirty houses on Little Bull Field Estate, King's Road, and twenty-four houses on Butcher's Field, King's Road, for the Chingford Urban District Council. Messrs. Gunton & Gunton, architects, Finsbury House, Blomfield Street, E.C. 2.

CLYDEBANK.—March 28.—For the excavation, brick, concrete, steel and iron work (one schedule required) in connection with the construction of a school at Whitecrook, Clydebank, for the Dumbarton County Education Authority. Deposit 10s. 6d. The Education Offices, 18 Park Circus, Charing Cross, Glasgow.

CONGLETON.—March 31.—The Congleton Rural District Council invite separate tenders for the erection of the following: (1) twelve cottages at Betchton, and (2) eight cottages at Hassall. Deposit £2 2s. Messrs. Alfred Price & Son, architects, Sandbach.

CONNAH'S QUAY.—March 31.—For the construction of roads and sewer work, and the erection of 156 houses, for the Urban District Council. The work may be tendered for as a complete scheme or for one section only of the following: (1) streets and sewer work for the whole site, 15.938 acres; (2) one section containing 34 houses; (3) one section containing 64 houses; (4) one section containing 58 houses. Deposit £3 3s. Mr. F. A. Roberts, M.S.A., architect, Mold.

DARTFORD.—For the erection of houses in the following parishes for the Rural District Council, viz.: Ash, eight; Hartley, six; Kingsdown, four. Send applications and £2 2s. deposit to Mr. F. Hall-Jones, architect, Parliament Mansions, Victoria Street, S.W. 1.

DUMBARTON.—April 5.—For the following works in connection with the burgh housing scheme—third development, viz.: Excavator and brick, wright and glazier, slater and rough east, plumber, gasfitter, plaster, painter. Mr. Wm. A. Macartney, Burgh Engineer, Dumbarton, or Messrs. John H. Allen & Sons, Quantity Surveyors, 224 St. Vincent Street, Glasgow.

DUNDEE.—March 25.—For the execution of the following works as required at extensions to Docks sub-station (near King William Dock), Dundee, for the Electricity Department, viz.:—slater work, patent glazing and plumber work (separate contracts). Mr. H. Richardson, general manager and engineer, Caroline Port, Generating Station, Dundee.

FILEY.—March 26.—For erection of thirty-four cottages, and for necessary roadways and sewers, for the Urban District Council. Send applications and £1 1s. deposit by March 26 to Mr. R. M. Robson, architect, 21 Belle Vue Street, Filey.

FRIMLEY GREEN.—April 7.—For erection of additional buildings at Barrow Hill Sanatorium, Frimley Green, Surrey, for the Commissioners of His Majesty's Works, &c. Deposit £1 1s. The Director of Contracts, H.M. Office of Works, &c., Storey's Gate, Westminster, S.W. 1.

GLASGOW.—March 29.—For supply and erection of steel windows in connection with the extension of the Municipal Buildings, for the Corporation. Deposit £5. Messrs. Watson, Salmond & Gray, 242 West George Street, Glasgow.

GLASGOW.—April 2.—For the following works required in connection with the proposed erection of a sub-station in Buchanan Street, for the Electricity Department, viz.: (1) Digger, mason, brick and reinforced concrete and plaster works; (2) carpenter, joiner and ironmongery works; and (3) plumber work. The Electrical Engineer, 75 Waterloo Street, Glasgow.

GLASGOW.—April 5.—For the glazier work proposed to be executed in connection with the extension of the Municipal Buildings. Deposit £5. Architects, Messrs. Watson, Salmond & Gray, 242 West George Street, Glasgow.

GLENDALE.—March 30.—For the following contracts for the Glendale Rural District Council: (a) Thirty houses at Wooler; (b) roads and sewers at Wooler; (c) six houses at Lowick; (d) sewers at Lowick. Send application by March 30 to Messrs. G. Reavell, F.R.I.B.A., and W. Arthur Tebbis, Licentiate R.I.B.A., surveyors and architects, Lloyds Bank Chambers, Alnwick.

GRAVESEND.—March 28.—For construction of an extension to the boiler house, Electricity Works, Suffolk Road, for the Town Council. The Borough Surveyor, Municipal Offices, Gravesend.

HANHAM, GLOS.—March 26.—For erection of twenty-four houses, forming part of the Hanham housing scheme, for the Kingswood Urban District Council. The number may be increased to fifty. Contractors may tender for the whole or part of the number, the minimum number of houses being one block of two. Deposit £2 2s. The Surveyor, Council Offices, Kingswood.

HESSLE, NEAR HULL.—April 15.—For the following works, for the Hessle Urban District Council: (a) For construction of street and sewerage works in connection with the laying out, for housing purposes, of about 7½ acres of land between Barrow Lane and Tower Hill; (b) for erection of eighty houses on the said land. (Tenders may be sent in for the whole of the eighty houses, or for a smaller number, but not less than four houses.) (c) for erection of two houses at the corner of Barrow Lane and Swanland Road, Hessle. Deposit £2. Mr. J. M. Dossor, F.R.I.B.A., architect, Waterloo Chambers, Hull.

LEICESTER.—April 5.—For erection of sixty houses, divided into ten contracts on the Narborough Road (Wyggeston Hospital site), for the Corporation. Builders may tender for any or all of the ten blocks. Mr. Walter Brand, A.R.I.B.A., 170 New Walk Leicester, and Mr. J. C. Baines, A.R.I.B.A., 22 Friar Lane, Leicester, associated architects. Send application and £1 1s. deposit by March 31 to Mr. E. G. Mawbey, M.Inst.C.E., city surveyor, Town Hall, Leicester.

LLANTRISANT.—March 31.—For the repairs at the following houses, for the Llantrisant and Llantwit Fardre Rural District Council: Nos. 2, 4, and 6 Pretoria Road, Tonyrefail; (2) Nos. 8, 10, and 12 Pretoria Road, Tonyrefail; (3) No. 4 Edmondstown Road, near Penygraig; (4) Nos. 65, 67, 69, 71, and 73 High Street, Gilfach Goch; (5) No. 44 Penygawsi, Llantrisant. Deposit £1. Mr. T. Saunders, surveyor, Council Offices, Pontyclun.



SPECIFY

**THE MOST EFFICIENT**

# VAUGHAN'S PURE BITUMEN DAMP-PROOF COURSES

Made from Highest-Grade Materials.  
Extensively specified for Important  
Contracts, Housing Schemes, etc.

## ROOFING FELTS

**"REXOID"** SELF-FINISHED BITUMEN  
ROOFING.

**"DUREX"** SMOOTH, FLEXIBLE FELT FOR  
ROOFING AND SARKING.

**"DURITE"** SUPERIOR BITUMEN  
UNDERSLATING, Etc.

For Samples, etc., apply to Manufacturers:

**H. R. VAUGHAN & CO. Ltd.,**  
(Dept. A) Works: GATESHEAD-ON-TYNE.  
Preston, Lancs, and Bishop Auckland.

LOW PRICES.

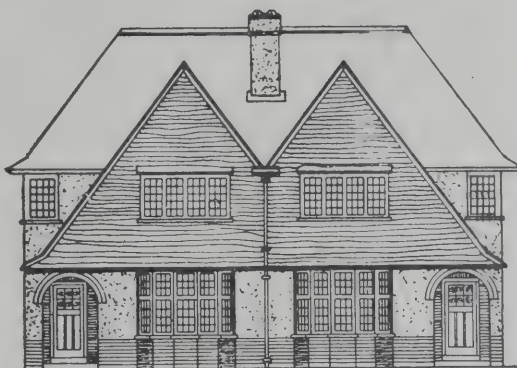
BEST WORK.



**THE BRILLIANT SIGN CO. Ltd.,**  
38 GRAY'S INN ROAD, LONDON.

18 Mount Street, Manchester.

25 Cookridge Street, Leeds.



## Photo Printing

FOR

**ARCHITECTS AND ENGINEERS**  
AND

*Commercial Photography*  
in all its branches.

SEND FOR SAMPLES OF OUR WORK.

**B. J. HALL & CO. LTD.**

BRANCHES:  
BIRMINGHAM  
NEWCASTLE-ON-TYNE  
GLASGOW.

CHALFONT HOUSE,  
GREAT PETER ST.,  
WESTMINSTER, S.W. 1.

## "The Architect"

Price 6d. weekly, by post 7½d.

Subscription £1 7s. 6d. per annum.



## "BASECO" PATENT BOILER.

The finest Boiler made for Domestic Hot Water  
Supply and for Hot Water Heating with Radiators.

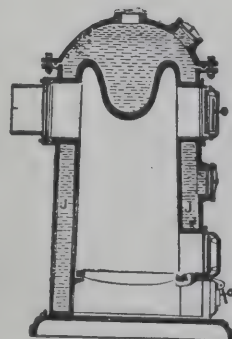
**ABSOLUTELY UNEQUALLED FOR EFFICIENCY  
AND ECONOMY.**

BURNS COAL, COKE, ANTHRACITE AND HOUSEHOLD REFUSE.

**British Invention and Manufacture.**

Through all Heating and Hot Water Engineers and Builders' Merchants.

Patentees: **O. BRUSTER & DE LAUNOIT**, 4 Lloyd's Avenue,  
Succrs. to H. C. ROBOTTOM & CO. LONDON, E.C. 3.



Section  
showing Water Pocket.



**LONDON.**—April 1.—For erection of school buildings to accommodate 600 children at Dersingham Avenue, Manor Park, for the East Ham Education Committee. Deposit £3. The Borough Engineer, Town Hall, East Ham.

**MILTON REGIS.**—For erection of another eight houses on the London Road site in the district, for the Milton Regis Urban District Council. Drawings, specifications and conditions of contract may be seen, and forms of tender obtained, at the office of the architect, Mr. M. Harvey, 36 Station Street, Sittingbourne.

**NEWCASTLE-UPON-TYNE.**—April 11.—For erection on the Pendower Estate of approximately forty-six acres of about 540 houses, and for making the estate roads and the laying of drains, for the Corporation. Mr. J. T. Cackett, F.R.I.B.A., Pilgrim House, Newcastle-upon-Tyne.

**NORTHALLERTON.**—March 28.—For erection of sale ring, concreting of yard, &c., for the directors of John Todd's Northallerton Store Stock Mart Company, Ltd. Mr. R. Robinson, secretary, Applegarth Mart, Northallerton.

**NORTH WALSHAM, NORFOLK.**—March 26.—For erection of four pairs of dwelling-houses on Upper Station Road, for the Urban District Council. Deposit £1. Mr. B. P. Gaymer, A.R.I.B.A., architect, Birchwood, North Walsham.

**PENGAM.**—March 30.—The Gellygaer Urban District Council invite lump-sum tenders for the following works on Gwerthonor Isaf Site, Pengam:—(1) Roads and sewers for 150 houses proposed on this site. The work includes excavation, filling, ballasting, and drainage, &c. (2) Erection and completion of 150 houses (in pairs of various types) on the above site. Deposit £2 2s. for each contract. Mr. P. Jones-Williams, architect, Council Offices, Hengoed.

**PINEWOOD.**—March 30.—For alterations, &c., in conversion of a house into two flats at Pinewood, near Wokingham, Berkshire, for the Metropolitan Asylums Board. Deposit £1. Mr. T. Cooper, M.I.C.E., M.I.M.E., engineer-in-chief, the office of the Board, Embankment, E.C. 4.

**PORTSMOUTH.**—March 30.—For erection of a war memorial. Messrs. J. S. Gibson & Gordon, F.R.I.B.A., architects, 5 Old Bond Street, London, W. 1. Deposit £2 2s. The Mayor of Portsmouth, Town Hall, Portsmouth.

**PRESTON.**—April 2.—For erection of four houses and farm buildings at Manor Farm, Preston, near Beverley, for the East Riding of Yorkshire County Council. The County Land Agent, County Hall, Beverley.

**PRESTONPANS.**—March 28.—For the following works in connection with the erection of thirty-six houses (three- and four-apartment cottages) at East Loan, for the Town Council, viz.: Excavator, brick and mason work; carpenter and joiner work; plumber work; tiler, slater, and rough cast work; plaster and cement work; painter work; glazier work; temporary buildings and fencing; formation of roads and drains. Messrs. R. & A. K. Smith, surveyors, 44 Queen Street, Edinburgh.

**RADCLIFFE.**—March 31.—For the stonework and other fencing required in enclosing the site of the monument, for the Memorial Committee. Mr. W. L. Rothwell, engineer and surveyor, Council Offices, Radcliffe.

**RAMPSIDE.**—March 30.—For re-roofing and enlarging St. Michael's Church. Mr. H. T. Fowler, A.R.I.B.A., architect and surveyor, 6 Cornwallis Street, Barrow.

**RUGBY.**—April 5.—For erection of houses, for the Commissioners of His Majesty's Works, &c. Deposit £1 1s. The Borough Surveyor's Office, Rugby, or the Director of Contracts, H.M. Office of Works, &c., Storey's Gate, Westminster, S.W.

**RUSHOLME.**—March 28.—The Manchester and Salford Co-operative Society, Ltd., invite tenders from builders and contractors experienced in ferro-concrete construction, for the erection of new shop premises and public hall in Platt Lane, Rusholme. Send application and £1 1s. deposit by March 28 to the Architect's Department, Co-operative Wholesale Society, Limited, 1 Balloon Street, Manchester.

**RYDE.**—March 29.—For erection and completion of thirty houses, forming the Swanmore housing scheme, for the Borough Council. Tenders may be for whole or part of the houses. Deposit £2 2s. The Borough Surveyor, Town Hall, Ryde, Isle-of-Wight.

**ST. ALBANS.**—April 4.—For erection of a telephone exchange for the Commissioners of H.M. Works. Deposit £1 1s. The Postmaster, St. Albans, or The Contracts Branch, H.M. Office of Works, London, S.W. 1.

**SHEFFIELD.**—April 16.—For the following work required in erection and supply of building and plant for refuse disposal works at Bernard Road, for the Health Committee: Contract No. (1) erection of buildings, Sections 1, 2, and 3;

(2) constructional ironwork; (3) reinforced concrete hoppers and bunkers; (4) chimney; (5) water-tube boilers; (6) mechanical stokers; (7) salvage and fuel recovery plant; (8) 40 h.p. loco for 4 ft. 8½ in. gauge, petrol, electric, or steam. Deposit £5 5s. Messrs. Mortimore, Lyon & Co., consulting engineers, 48 Mansfield Chambers, St. Ann's Square, Manchester, or Mr. J. A. Priestley, Cleansing Superintendent, Town Hall, Sheffield.

**SKELMANTHORPE.**—March 28.—For the construction of fifteen houses in Commercial Road, for the Urban District Council. Messrs. J. Berry & Sons, architects and surveyors, 3 Market Place, Huddersfield.

**SPEYMOUTH.**—March 30.—For the mason, carpenter, slater, plaster, and plumber work of an additional wing to dwelling-house at Upper Auchenreath; and for mason and carpenter work of new covered court at Bauds, Speymouth. Mr. D. J. Cunningham, factor, the Estate Offices, Fochabers.

**STALYBRIDGE.**—April 6.—For the erection of extensions to main car shed, Tame Valley, for the Stalybridge, Hyde Mossley, and Dunkinfield Tramways and Electricity Board. Deposit £2 2s. Messrs. W. H. George & Son, Lic.R.I.B.A., architects, 7 Warrington Street, Ashton-under-Lyne.

**WALLINGFORD.**—April 6.—For the erection of four brick cottages, each at Long Whittenham and Brightwell, Berks, for the Wallingford Rural District Council. The offices of the Council, at 7 St. Martin's Street, Wallingford, and Messrs. Drower & Brighton, quantity surveyors, 28 Victoria Street, Westminster, London, S.W. 1.

## Housing News.

AYR Town Council last week agreed to submit to the Board of Health for approval tenders for 100 houses to be erected at Woodfield, and the clerk was instructed to inquire whether the Board would guarantee that the money would be forthcoming in the event of the funds not being raised locally; and also whether they would guarantee the Corporation against loss in the event of the houses not being all built before the limit expires.

The Pershore Rural District Council have decided to take steps to erect the following cottages:—Pinvin 20, Peopleton 8, Defford 6, Cropthorne 6, Throckmorton 6, Bishampton 6, Eckington 8, White Ladies Aston 6, Moor 2, Naunton Beauchamp 2, Drakes Broughton 6, Wadborough 4.

ANSWERING Major Kelly in the House of Commons last week, Dr. Addison said he was aware there was a variation in the output of bricklayers, though he did not think the difference was so much as 900 bricks per man per day in the case of operatives employed on building guilds contracts down to 300 bricks per day where men were employed on private contracts. If the output could be increased from 300 bricks to 900 bricks per day it would mean a considerable saving of time, and the cost per house would be £760 instead of £1,150.

## Trade Note.

THE Ironsides Company of Columbus, Ohio, U.S.A., has just established an agency in this country for the sale of the Ironsides Roll Neck and Gear Shield Greases, which are now used by practically all the leading rolling mills in the United States. The special manufactures of the Ironsides Company comprise: (1) Automobile gear shield for the lubrication of transmission and rear gears on automobiles; (2) Cold Neck Shield for use on roll necks; (3) Ironsides Gear Shield for heavy gearing and pinions such as are used on electric railways, tramways, dredges, coal mines and docks, brick and stone works, lifts, chains, &c. It is claimed that hundreds of mills in U.S.A. have now practically abandoned the use of all other makes of gear lubricants in favour of the Ironsides preparations. The special advantages claimed for the Ironsides Cold Neck Shield preparations are that they are composed of pure fat without filler of any description in their composition, and that lubrication commences with the first revolution of the mill. Many of the other lubricants on the market are "loaded" with dry material which causes the grease to crumble and fall off the roll, thus becoming practically workless after once being applied to the rolls. Users of the Ironsides lubricants testify to a saving of over 50 per cent. in wear and tear of rolls and brasses, and also great economy in use owing to the absence of waste. Further particulars may be had from Mr. John Hanlon, 61a Bold Street, Liverpool, who has been appointed sole European agent for all the Ironsides specialities.



# SCAFFIXER

Telegrams:  
"SCAFFIXER,"  
CLAPROAD,  
LONDON.

THE PATENT RAPID-SCAFFOLD-TIE CO. LTD.  
41-43 LANSDOWNE ROAD, STOCKWELL, S.W.



# SCAFFOLD TIES

Telephone:  
BRIXTON 330.  
Code:  
A.B.C. (5th Edition).

## WEST LONDON TIMBER & MOULDING CO. LTD.

TIMBER MERCHANTS & MANUFACTURERS  
of all kinds of

# MOULDINGS

MAGNOLIA HOUSE. STRAND-ON-THE-GREEN. CHISWICK, W.4

Telephone No.:  
CHISWICK  
1737  
(2 lines)

Telegrams:  
UPRIGHTLY  
GUNNERS,  
LONDON

W

E shall issue THREE SPECIAL BUILDING EXHIBITION NUMBERS of THE ARCHITECT on APRIL 8, 15 and 22. Particulars on application.

## JONATHAN LONGBOTHAM & SONS, Ltd.

DRY ENGLISH OAK CILLS.  
ASH AND OAK PLANKING.  
FOREIGN DEALS, BATTENS  
AND BOARDS, WOOD WOOL.

*English and Foreign Timber Merchants*

Carbon Chambers,  
Water Lane, Sheffield.

Also at LONDON,  
BIRMINGHAM,  
NEWCASTLE, and  
GLOUCESTER.

## BOILERS. BOILERS. BOILERS.

Great reduction in prices. Manufacturers of all sizes and designs for Heating Installation, Domestic Hot Water Supply, or for Housing Schemes.  
*Quality unsurpassed. Delivery from stock.*

Fire welding a speciality.  
Over 60 years reputation.  
Send for Catalogue.

**J. ASHTON RILEY LTD.,** Canal Boiler & Tank Works, Huddersfield.

## WALSHAMS Ltd.,

*Architectural Photographers*

Official Photographers  
to  
H. M. Office of Works.

60 Doughty Street, London, W.C.

Telephone: 3600 Central.

Photographs taken in  
any part of the country  
— at shortest notice. —

FOR PARTICULARS OF PATENT

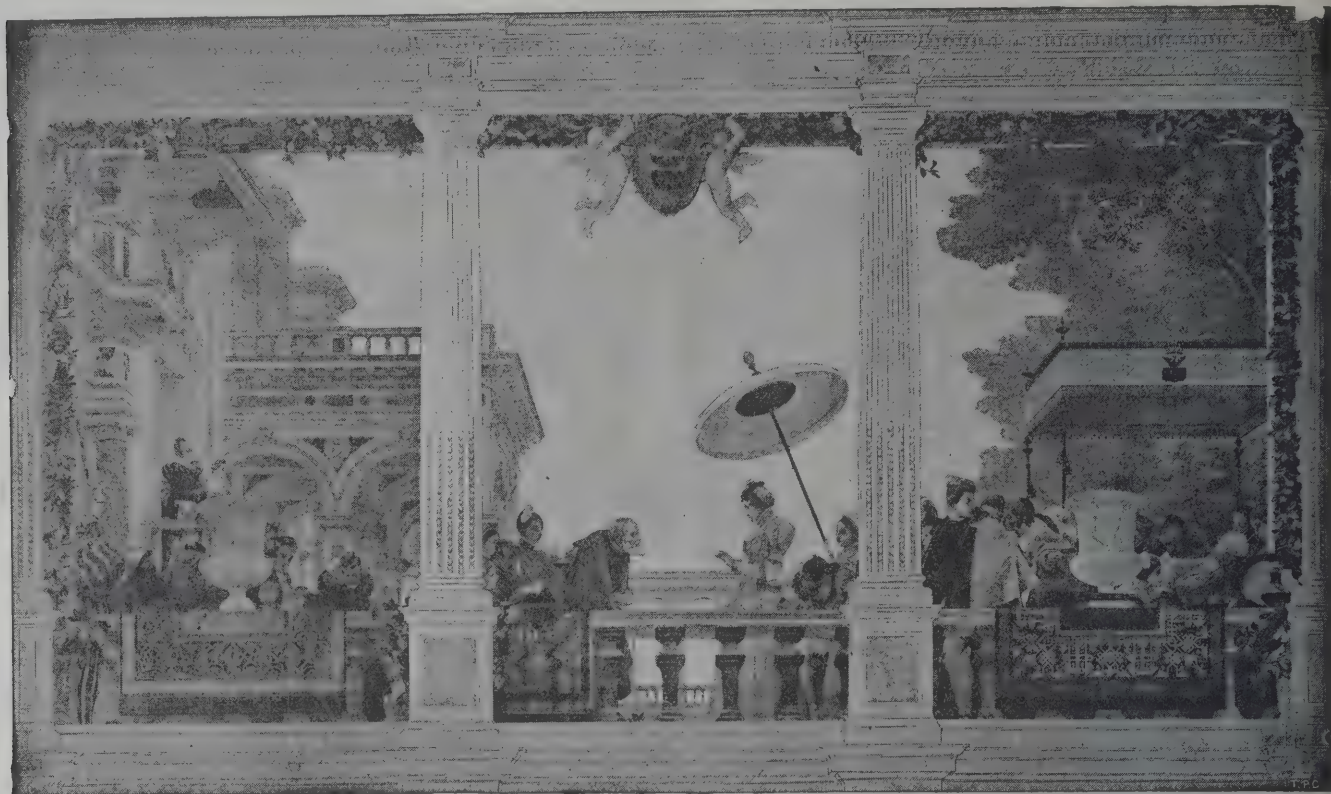
# TUBULAR SCAFFOLDING

## AND CRANE STAGINGS

Apply to THE TUBULAR SCAFFOLDING CO. LTD., 200 UPPER KENNINGTON LANE, LONDON, S.E. 11

Phone: Hop 3136.





**A Renaissance Fête (The Arrival).**

By PIERRE VICTOR GALLAND. From a Wall Painting in the Palace of Narischkine, St. Petersburg. A beautiful Tinted Ink Photo. Size 40 in. by 22 in. Price 2s. 6d. Free by post, carefully packed inside patent roller.



**The Masters of Art.**

By H. H. ARMSTEAD, R.A., and J. B. PHILLIP. No. 1, Architects; No. 2, Sculptors; No. 3, Painters; No. 4, Poets and Composers. Size of Frieze, 12 ft. long by 14 in. deep. Proofs of this beautiful Frieze can now be obtained, price 6s. 6d., free by post on application.



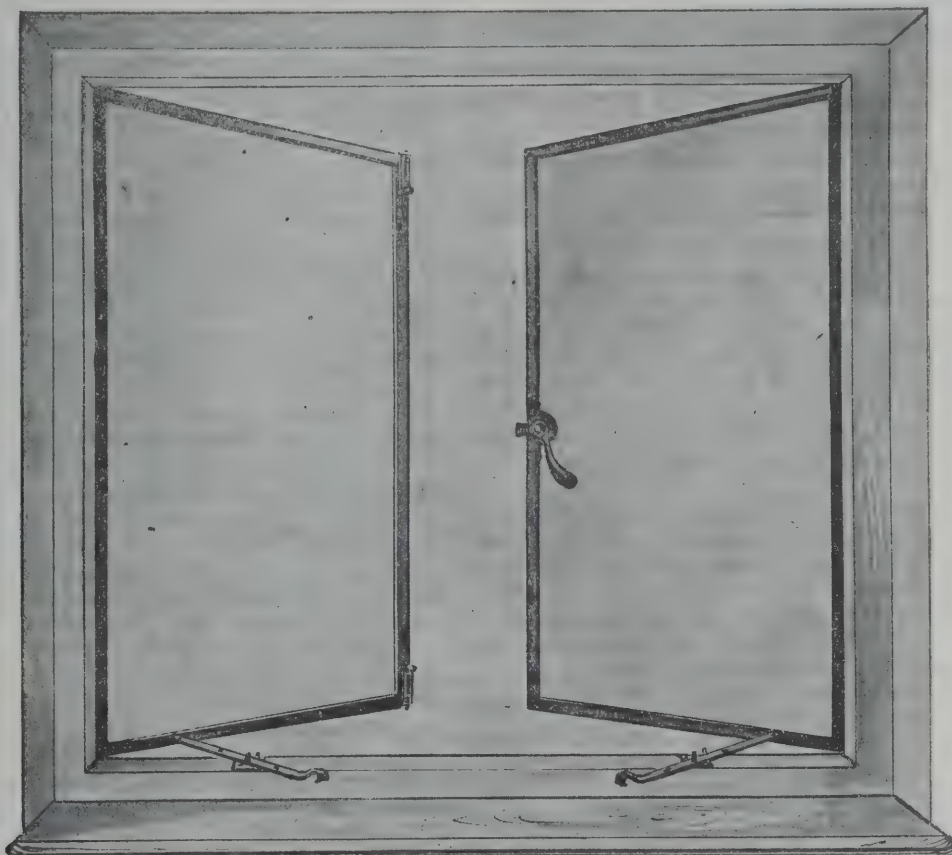
**A Renaissance Fête (The Concert).**

By PIERRE VICTOR GALLAND. From a Wall Painting in the Palace of Narischkine, St. Petersburg. A beautiful Tinted Ink Photo. Size 40 in. by 22 in. Price 2s. 6d. Free by post, carefully packed inside patent roller.

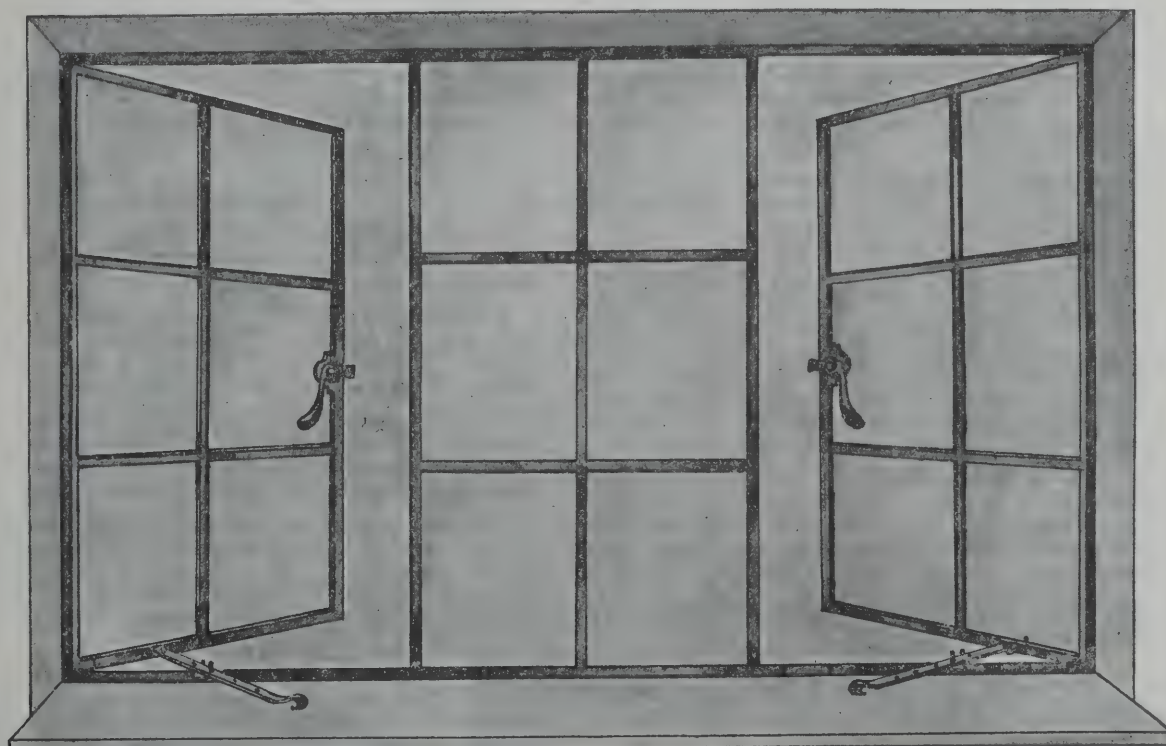


# JAMES GIBBONS, LTD.

ST. JOHN'S WORKS, WOLVERHAMPTON.



GIBBONS "WORKMAN'S" COTTAGE WINDOWS, with Side-Hung Casements to hang to wood frames.  
"All-Open" Type in large panes. Also made with small panes.  
All outside surfaces can be cleaned from inside.



GIBBONS "SIDE-HUNG" COTTAGE WINDOWS.

LONDON OFFICE: 15 and 16 FISHER STREET, SOUTHAMPTON ROW, W.C. 1.

# THE ARCHITECT

FOUNDED 1869.

Incorporating "The Contract Reporter," 1885.  
 "The Builder's Reporter and Engineering Times."  
 "The Building Trade," 1913.

FRIDAY, APRIL 1, 1921.

*Owing to the increasing demand for back numbers we are compelled to give the following notice:—*

*All numbers for the past twelve months 9d. each, previous to that date 1s. each.*

## TENDERS, &c.

*"As great disappointment is frequently expressed at the non-appearance of Contracts Open, Tenders, &c., it is particularly requested that information of this description be forwarded to the Office, Imperial Buildings, Ludgate Circus, London, E.C., not later than 2 P.M. on Wednesdays.*

## CONTRACTS OPEN.

**ALBERT.**—April 16.—For erection of eight houses at Albert Village, for the Ashby Woulds Urban District Council. Deposit £2 2s. Messrs. Baines & Provis, architects, 22 Friar Lane, Leicester.

**ASHBOURNE.**—April 9.—For erection of forty houses, or any portion of them, in the following parishes in their district, viz.:—Middleton-by-Wirksworth (12), Biggin-by-Hartington (6), Hartington Village (4), Brassington (6), Wyaston (4), Shirley (4), Brailsford (2), and Mercaston (2), for the Ashbourne Rural District Council. Deposit £1 1s. Mr. J. H. Wheeldon, housing surveyor, King Edward Street, Ashbourne, Derbyshire.

**ASHBY-DE-LA-ZOUCH.**—April 21.—For erection and completion of 100 houses of five types, within the area, as follows, for the Ashby-de-la-Zouch Rural District Council:—Twenty-four houses on Thringstone lay-out, scheme F.970, on Loughborough Road, opposite the church; twelve houses on Swannington No. 1 lay-out, scheme F.971, on Turnpike Road, immediately below Swannington Station; twenty houses on Swannington No. 2 lay-out, scheme F.971, on road through Swannington village; eighteen houses on Ravenstone lay-out, scheme F.974, on Burton Road and Wash Lane; twenty-six houses on Worthington lay-out, scheme F.975, on main roads. Together with fencing, footpaths, drainage and wells on each lay-out. The Council will consider tenders for one or more pairs of houses, or the whole, on any one lay-out, to suit the contractors' convenience. Deposit £2 2s. Mr. H. Swanwick, architect and surveyor, 10a High Street, Coalville.

**BEDALE.**—For the whole or any of the trades required in erection of three bungalow cottages and two sets of farm buildings, also alterations and additions to the existing farm buildings at Bromakin Grange, Bedale, for the North Riding of Yorkshire County Council. Mr. A. J. Lyddon, A.M.I.C.E., county surveyor, County Hall, Northallerton.

**BENGWORTH.**—April 6.—For erection of sixty-eight houses, with their appurtenances, on the Council's site near King's Road, Bengeworth, Evesham, for the Evesham Town Council. Deposit £2 2s. Mr. H. E. Dicks, M.S.A., architect, Evesham.

**BROMLEY.**—April 18.—For the whole of the works in connection with erection of houses in the Parishes of Chelsfield, Farnborough, Hayes, Keston, Knockholt, Orpington, St. Mary Cray, and West Wickham, Kent, for the Bromley Rural District Council. The works include roadmaking and construction of sewers in connection with four sites, and the erection of the following houses, in pairs, with footpaths, fencing, &c.:—Chelsfield—Warley Field, twelve houses, class A; Kiln Field, eight, A; Main Road, Pratts Bottom, four, B; Church Site, Pratts Bottom, six, A; Vine Road, Green Street Green, eight, A; Vine Road, Green Street Green, six, B; World's End Road, Green Street Green, six, B. Farnborough—Pickington's Lane, eight, B; Oak Brewery, eight, B. Hayes—George Lane, six, A; George Lane, four, B. Keston—Westerham Road, thirty-two, A. Knockholt—Post Office site, eight, A; Burlings Lane, four,

A. Orpington—Homefield Rise, 110, B; Griggs Cross, twenty, B. St. Mary Cray—Star Lane and Hearn's Road, thirty-two, A; Star Lane and Hearn's Road, eighteen, B. West Wickham—Hawes Lane, six, A; Hawes Lane, six, B. Contractors may submit tenders for each or all of above groups. Mr. F. Danby Smith, F.R.I.B.A., Parliament Mansions, Victoria Street, S.W. 1.

**BUXTON.**—April 11.—For the various works required in execution and completion of brick houses, King's Road, Fairfield, Buxton, in blocks of two, three and four houses for the Town Council. Deposit £1 1s. Mr. F. Langley, borough engineer and surveyor, Town Hall, Buxton.

**CARMARTHEN.**—April 8.—For erection of the following houses, for the Carmarthen Rural District Council:—Gorslas, Llanarthney, fourteen houses; Cefneithyn, Llanarthney, fourteen; Drefach, Llanarthney, twelve; Ferryside, two; Pontyeates (St. Mary's), Llangendeirne, sixteen; Pontyeates (Llwynrhebog), Llangendeirne, ten; Carway Village, Llangendeirne, twenty; Bryn Seion, Llanddarog, eight; Station Road, St. Clears, eight; total 104 houses. Deposit £2 2s. Mr. D. Thomas, architect, Quay Street, Ammanford.

**CHINGFORD.**—April 4.—For erection of thirty houses on Little Bull Field Estate, King's Road, and twenty-four houses on Butcher's Field, King's Road, for the Chingford Urban District Council. Messrs. Gunton & Gunton, architects, Finsbury House, Blomfield Street, E.C. 2.

**CLUTTON.**—April 21.—For erection of twelve houses at Clutton, for the Rural District Council. Send application by April 14 to Messrs. Petter & Warren, architects, 74 Hendford, Yeovil.

**DEAL.**—April 14.—For erection of eighteen houses and one new road under the housing scheme on the London Road site, for the Corporation. Contractors may tender for whole or part only of the works. Deposit £2 2s. Mr. T. C. Golder, architect and borough surveyor, Municipal Offices, 18 Queen Street, Deal.

**DUMBARTON.**—April 5.—For the following works in connection with the burgh housing scheme—third development, viz.: Excavator and brick, wright and glazier, slater and rough cast, plumber, gasfitter, plaster, painter. Mr. Wm. A. Macartney, Burgh Engineer, Dumbarton, or Messrs. John H. Allen & Sons, Quantity Surveyors, 224 St. Vincent Street, Glasgow.

**EDINBURGH.**—April 11.—For erection of nineteen single and four double blocks of tenements, three storeys in height, of three- and four-apartment houses, as a series of contracts, in such lots or numbers as may be arranged, at Willowbrae Road, Edinburgh, for the Corporation. Messrs. Fairlie, Reid & Forbes, architects, 14 Randolph Place, Edinburgh, or Mr. J. D. Gibson, F.F.S., surveyor, 60 Frederick Street, Edinburgh.

**EDLINGTON.**—April 5.—For erection of entrance gates, wall, fencing, &c., for the new burial ground in Edlington Lane, for the Edlington Parish Council. Messrs. J. Simmons & Son, architects, 10 High Street, Doncaster.

**FAVERSHAM.**—April 4.—For erection of eight houses at Preston Avenue, for the Town Council. Mr. S. P. Andrews, borough surveyor, 20 West Street, Faversham.

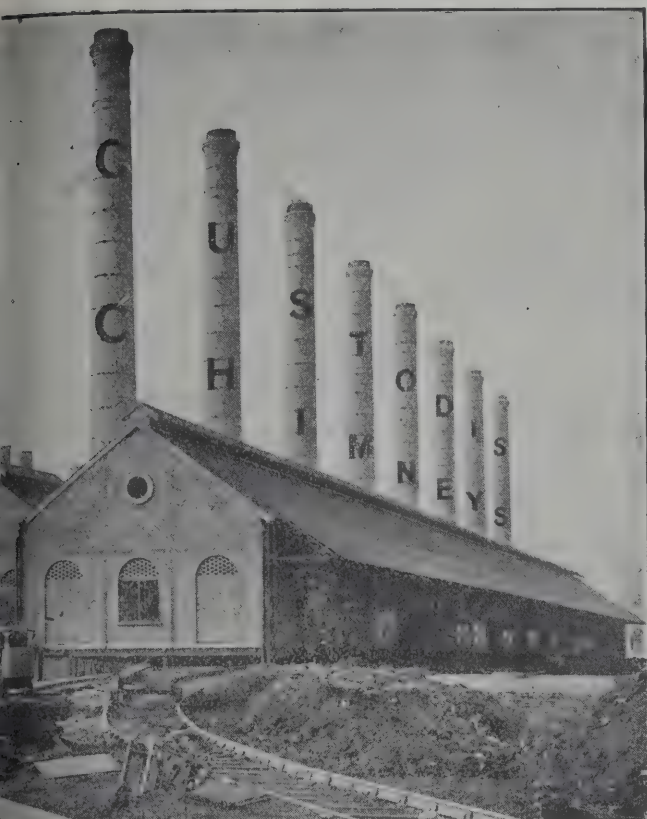
**FRIMLEY GREEN.**—April 7.—For erection of additional buildings at Barrow Hill Sanatorium, Frimley Green, Surrey. Deposit £1 1s. The Director of Contracts, H.M. Office of Works, Storey's Gate, Westminster, S.W.

**GLASGOW.**—April 5.—For the glazier work proposed to be executed in connection with the extension of the Municipal Buildings. Deposit £5. Architects, Messrs. Watson, Salmond & Gray, 242 West George Street, Glasgow.

**GLASGOW.**—April 9.—For the following works required in erection of Kennyhill sub-station, Cumbernauld Road, for the Corporation, viz.:—(1) Digger, mason, brick and reinforced concrete, and joiner works; and (2) plumber work. Electrical Engineer, 75 Waterloo Street, Glasgow.

**HESSLE, NEAR HULL.**—April 15.—For the following works, for the Hesse Urban District Council: (a) For construction of street and sewerage works in connection with the laying out, for housing purposes, of about 7½ acres of land between Barrow Lane and Tower Hill; (b) for erection of eighty houses on the said land. (Tenders may be sent in for the whole of the eighty houses, or for a smaller number, but not less than four houses.) (c) for erection of two houses at the corner of Barrow Lane and Swanland Road, Hesse. Deposit £2. Mr. J. M. Dossor, F.R.I.B.A., architect, Waterloo Chambers, Hull.





EIGHT CHIMNEYS RECENTLY BUILT BY CUSTODIS, LTD.

inquiries invited.  
TELEGRAMS—Custodimus Sowest.  
PHONE—779 Victoria  
**CUSTODIS, LTD.,**  
119 Victoria Street,  
WESTMINSTER. S.W.1.

**VENUS**

17 degrees  
Blacklead  
6B (Softest)  
to  
9H (Hardest)

For  
Architects  
& Builders

Of all Stationers &  
Drawing Office Suppliers

**PENCILS**

"VENUS" Lower Clapton Road E.5.

BLACKLEAD:  
6d. each, 5/6 doz.  
COPYING:  
4d. each, 3/9 doz.

LOW PRICES. BEST WORK.

INSURE SUCCESS  
USE  
**A GOOD SIGN**  
TO ADVERTISE  
A GOOD CHAINMOUNT

**THE BRILLIANT SIGN CO. Ltd.,**  
38 GRAY'S INN ROAD, LONDON.  
18 Mount Street, Manchester. 25 Cookridge Street, Leeds.

**HEATING** AND HOT  
WATER  
SUPPLIES.

FOR EVERY DESCRIPTION OF BUILD-  
ING, OFFICES, FACTORIES, &c. &c.

**CHAS. P. KINNELL & CO., LTD.,**  
65, Southwark Street, London, S.E. 1

**VENTILATION**

EXPERT ADVICE & ESTIMATES FREE

**BEAUDEXOL**

SUPER WATER PAINT  
IN 40 STANDARD SHADES

PERMANENT DURABLE  
WASHABLE SANITARY

■ ■ ■ ■

ONE REASON FOR SPECIFYING  
**BEAUDEXOL**

The STANDARD SHADES as  
shown in our Tint Book are absolutely  
guaranteed and we also guarantee  
continuity of these.

■ ■ ■ ■

**BROWN & CRITCHLEY, LTD.,**  
LENZIE, SCOTLAND.

Telegrams: "Wa'pa, Lenzie." Telephone: 51 Kirkintilloch.



**HINDLEY.**—April 4.—For erection of houses on land in Atherton Road, Hindley Green:—Contract No. 3—eight houses (four pairs); No. 4—twenty-six houses (six blocks of four and one pair), for the Urban District Council. Deposit £3 3s. Mr. O. P. Abbott, surveyor, Council Offices, Hindley.

**HUDDERSFIELD.**—April 6.—Converting.—For conversion into shop premises of warehouse property in Westgate. Messrs. J. Berry & Sons, architects and surveyors, 3 Market Place, Huddersfield.

**HUDDERSFIELD.**—April 8.—For alterations at Huddersfield Post Office. Deposit £1 1s. The Postmaster, Huddersfield, or the Director of Contracts, H.M. Office of Works, London, S.W. 1.

**LISKEARD.**—April 5.—For additions to the Cottage Hospital. Mr. H. R. Venning, Lic.R.I.B.A., architect and surveyor, Greenbank Lane, Liskeard.

**LOUGHBOROUGH.**—April 19.—For erection of thirty-four houses on Land, Corporation, and Oliver Roads, Loughborough, for the Housing Committee. Deposit £1 1s. Messrs. A. E. King & Co., architects and surveyors, 19 Baxter Gate, Loughborough.

**MANCHESTER.**—April 4.—For construction of a dayroom, &c., at Baguley Sanatorium, for the Public Health Committee. Deposit 10s. 6d. The City Architect, Town Hall, Manchester.

**MIDDLETON.**—April 13.—For erection and completion of twenty-four houses, class B3, types B7 and B8, comprising twelve pairs, for the Town Council. Messrs. T. A. Fitton and Son, architects, 19a Corporation Street, Manchester. The Borough Engineer, Town Hall, Middleton, Lancs.

**MIDDLETON.**—April 13.—For erection and completion of fifty-two houses, class B3, types B1, B2, B3 and B4, in pairs and blocks of four, for the Town Council. Mr. J. H. Sellers, architect, 78 King Street, Manchester. The Borough Engineer, Town Hall, Middleton.

**MOUNTAIN ASH.**—April 4.—For converting premises in Cliff Street, Darran-las, into shop premises, &c., for the Cwmbach-Aberaman Co-operative Society, Ltd. Messrs. T. Roderick & Sons, architects, Clifton Street, Aberdare.

**NEWCASTLE-UPON-TYNE.**—April 11.—For erection on the Pendower Estate of approximately forty-six acres of about 540 houses, and for making the estate roads and the laying of drains, for the Corporation. Mr. J. T. Cackett, F.R.I.B.A., Pilgrim House, Newcastle-upon-Tyne.

**PAULTON.**—April 21.—For erection of twenty-six houses at Paulton, for the Rural District Council of Clutton. Send application by April 14 to Messrs. Petter & Warren, architects, 74 Hendford, Yeovil.

**PLUMSTEAD.**—April 27.—For alterations to operating-room, &c., and the erection of two rooms in connection, at the Infirmary, Plumstead, for the Guardians of Woolwich Union. Send names by April 5 to Messrs. Whincoop and Parnell, architects, 42 William Street, Woolwich, S.E. 18.

**RAMSGATE.**—May 5.—For erection and completion of twenty-six houses on the Dumpton Road site, for the Corporation. Deposit £2 2s. The Borough Engineer, Albion House, Ramsgate; or Mr. W. Everard Healey, Lic.R.I.B.A., M.S.A., 2a Turner Street, Ramsgate.

**RUGBY.**—April 5.—For erection of houses, for the Commissioners of His Majesty's Works, &c. Deposit £1 1s. The Borough Surveyor's Office, Rugby, or the Director of Contracts, H.M. Office of Works, &c., Storey's Gate, Westminster, S.W.

**ST. ALBANS.**—April 14.—The Commissioners of His Majesty's Works, &c., invite tenders, before 11 a.m. on April 14, for the erection of a telephone exchange at St. Albans. Drawings, specifications, and a copy of the conditions and form of contract may be seen on application to the Postmaster, St. Albans. Bills of quantities and forms of tender may be obtained from the Contracts Branch, H.M. Office of Works, London, S.W. 1, on payment of £1 1s. Cheques should be made payable to The Secretary, H.M. Office of Works. The sums so paid will be returned to those persons who send in tenders in conformity with the conditions.

**SETTLE.**—April 14.—For erection of two blocks of four houses, each Type A, and one pair of houses, Type B, or any portion of this number; and also for street-making and surface drainage works, for the Rural District Council. Deposit £1 1s. Mr. T. A. Foxcroft, surveyor, Town Hall, Settle.

**SHEFFIELD.**—April 16.—For the following work required in erection and supply of building and plant for refuse disposal works at Bernard Road, for the Health Committee: Contract No. (1) erection of buildings, Sections 1, 2, and 3;

(2) constructional ironwork; (3) reinforced concrete hoppers and bunkers; (4) chimney; (5) water-tube boilers; (6) mechanical stokers; (7) salvage and fuel recovery plant; (8) 40 h.p. loco for 4 ft. 8½ in. gauge, petrol, electric, or steam. Deposit £5 5s. Messrs. Mortimore, Lyon & Co., consulting engineers, 48 Mansfield Chambers, St. Ann's Square, Manchester, or Mr. J. A. Priestley, Cleansing Superintendent, Town Hall, Sheffield.

**WALLINGFORD.**—April 6.—For the erection of four brick cottages, each at Long Whittenham and Brightwell, Berks, for the Wallingford Rural District Council. The offices of the Council, at 7 St. Martin's Street, Wallingford, and Messrs. Drower & Brighton, quantity surveyors, 28 Victoria Street, Westminster, London, S.W. 1.

## TENDERS.

### FOLKESTONE.

For additions to the Royal Victoria Hospital, Folkestone. Messrs. Bromley & Dahl, A.R.I.B.A., architects, Folkestone.

Somerville & Co.	£7,899	0	0
Wallis & Son	7,754	0	0
Blay & Co.	7,379	0	0
L. T. Dadds	7,371	0	0
Lockwood & Co.	7,006	0	0
Perry & Co.	6,999	0	0
O. Marx	6,957	0	0
Denne & Son	6,853	0	0
Jenner & Son	6,800	0	0
Martin	6,490	0	0
T. T. Denne	6,466	0	0
Gosby	6,435	0	0
Cook & Parker	6,070	0	0
Hayward & Paramoor	5,962	0	0
BAKER & Co. (accepted)	5,870	0	0

### GOSPORT.

For the erection of a War Memorial Hospital at Ann's Hill, for the Executive Committee.

S. Salter	£28,185	0	0
J. Croad	26,962	0	0
F. Privett	25,487	0	0
J. HUNT, Gosport (provisionally accepted)	25,305	0	0

### GUILDFORD.

For the erection of houses in connection with the housing schemes, as follows: Parish of Albury, 2 sites 10 houses; parish of Godalming Rural (South), 2 sites 8 houses; parish of Compton, 1 site 4 houses; parish of Shere, 4 sites 42 houses, for the Guildford Rural District Council. Mr. J. H. Norris, architect, Guildford.

R. Cook & Sons, Crawley	£57,511	0	0
Stanley Ellis, Guildford	56,205	0	0
Bunning & Fitton Adams, Godalming	56,107	0	0
W. Jones & Sons, Westminster	56,026	0	0
F. Milton & Sons, Witley	55,970	0	0
Chapman, Lowry & Puttick, Ltd., Haslemere	54,600	0	0
W. G. TARRANT, Byfleet (provisionally accepted)	53,480	0	0

### LLANTRISANT.

For the erection of a Boys' Council School (light structure), for the Glamorgan County Council. Mr. D. Pugh Jones, F.S.A., F.S.I., county architect, Cardiff.  
P. GAYLARD, Bridgend, Glam. (accepted). £7,995 0 0

THE Pershore District Council have agreed to take steps to erect the following cottages, namely:—Pinvin, 20; Peopleton, 8; Defford, 6; Cropthorne, 6; Throckmorton, 6; Bishampton, 6; Eckington, 8; White Ladies' Aston, 6; Moor, 2; Naunton Beauchamp, 4; Drakes Broughton, 6; Wadborough, 4.

AMONG recent wills are the following:—Lieut.-Col. W. H. Wellsted, of Hessle, Yorks, senior partner in Wellsted, Dosser & Wellsted, architects and civil engineers, Hull, J.P. for the East Riding and for Hull, chairman and director of many local companies, engineer for Sulcoates Rural Council, £126,296; and Mr. Philip Pratley, of 16 Garmoule Road, Liverpool, senior partner in James Roberts & Co., builders and contractors, South Street, Dingle, £15,789.



# 3

## GOOD THINGS

All Architects should specify during 1921.

### “MURALINE” THE PERFECT WATER PAINT

SANITARY, ARTISTIC & DURABLE.

In 30 Shades. Sold in a Dry Powder.

In 2½-lb., 5-lb. and 7-lb. Packets and in Kegs.

### “MURAPRIME” AN EFFECTIVE PRIMING FOR OLD & NEW POROUS WALLS

A Priming for “Muraline” and all washable Water Paints, stops suction on Porous Plaster Walls, and also ensures the fixing of Colours on Wall-paper prior to Distempering.

### “COVERINE” THE CELEBRATED WHITE UNDERCOATING

One Coat transforms Black into White. It can be Second Coated in a few hours. Sold in 7-lb. Tins and in Bulk.

FOR FULL PARTICULARS OF FURTHER PAINTS AND SPECIALITIES APPLY

## WALTER CARSON & SONS

Grove Works : BATTERSEA, LONDON, S.W. 11

Telegrams : “Carsons, Battsquare, London.” Telephone : Battersea 1630 (2 lines).

BUILDING TRADES EXHIBITION, OLYMPIA, Row K, Stand 202

# THE ARCHITECT

FOUNDED 1869.

Incorporating "The Contract Reporter," 1885.  
"The Builder's Reporter and Engineering Times."  
"The Building Trade," 1913.

FRIDAY, APRIL 8, 1921.

*Owing to the increasing demand for back numbers we are compelled to give the following notice:—*

*All numbers for the past twelve months 9d. each, previous to that date 1s. each.*

## TENDERS, &c.

\* \* *As great disappointment is frequently expressed at the non-appearance of Contracts Open, Tenders, &c., it is particularly requested that information of this description be forwarded to the Office, Imperial Buildings, Ludgate Circus, London, E.C., not later than 2 P.M. on Wednesdays.*

## CONTRACTS OPEN.

ALBERT.—April 16.—For erection of eight houses at Albert Village, for the Ashby Woulds Urban District Council. Deposit £2 2s. Messrs. Baines & Provis, architects, 22 Friar Lane, Leicester.

ARDROSSAN.—April 13.—For the following works in connection with erection of new filter house at Millglen Filters, Dalry Road, for the Town Council, viz.: digger, brick and concrete works, carpenter and joiner works, plumber work, plaster work, painter work. Deposit £1 1s. Mr. J. C. Duncan, water manager, Burgh Chambers, Ardrossan.

ASHBY-DE-LA-ZOUCH.—April 21.—For erection and completion of 100 houses of five types, within the area, as follows, for the Ashby-de-la-Zouch Rural District Council:—Twenty-four houses on Thringstone lay-out, scheme F.970, on Loughborough Road, opposite the church; twelve houses on Swannington No. 1 lay-out, scheme F.971, on Turnpike Road, immediately below Swannington Station; twenty houses on Swannington No. 2 lay-out, scheme F.971, on road through Swannington village; eighteen houses on Ravenstone lay-out, scheme F.974, on Burton Road and Wash Lane; twenty-six houses on Worthington lay-out, scheme F.975, on main roads. Together with fencing, footpaths, drainage and wells on each lay-out. The Council will consider tenders for one or more pairs of houses, or the whole, on any one lay-out, to suit the contractors' convenience. Deposit £2 2s. Mr. H. Swanwick, architect and surveyor, 10a High Street, Coalville.

AUCHTERMUCHTY.—April 30.—For the erection of ten houses (three and four apartments) for the Town Council, viz.: mason and brick work, carpenter and joiner work, glazier work, plumber work, plaster and cement work, roof-tiling work, and painter work. Mr. R. Fairlie, architect, 14 Randolph Place, Edinburgh.

BANDEATH.—April 13.—For erection of houses at Bandeath. Tenders are invited for the whole work and not for separate trades. Deposit £1 1s. The Architect, H.M. Office of Works, 3 Parliament Square, Edinburgh.

BLAYDON.—April 18.—For erection of 200 houses at Chopwell, comprising: ten pairs A2 type; sixty-five pairs A3 type; twenty pairs B3 type; five pairs B4 type, for the Blaydon Urban District Council. The Council will consider tenders for the whole or for small groups of houses. Deposit £1 1s. The Surveyor, Urban District Council Offices, Blaydon-on-Tyne.

BRADFORD.—April 16.—For erection of the following houses for the Corporation, viz.: Housing Scheme No. 2, Thornbury—sixteen houses, class A; fifty-four houses, class B and B4. Scheme No. 4, Scholemoor, sixty-four houses, class A; 128 houses, class B and B4. Contractors may tender for separate trades or for the whole of the work complete. The City Architect, Town Hall, Bradford.

CARDENDEN.—April 14.—For the plaster and cement work of types E, F, G and J—fifty-two houses in all—to be erected at Dundonald site, Cardenden, for the Fife County Council. Deposit £1 1s. Messrs. W. Williamson,

F.R.I.B.A., and G. B. Deas, joint architects, Royal Bank Buildings, Kirkcaldy.

CLUTTON.—April 21.—For erection of twelve houses at Clutton, for the Rural District Council. Send application by April 14 to Messrs. Petter & Warren, architects, 74 Hendford, Yeovil.

DARLINGTON.—April 19.—For erection of ninety-six houses for the Corporation. Builders may tender for the whole or part of the blocks of houses to be erected. Deposit £1 1s. Mr. G. Winter, borough surveyor, Town Hall, Darlington.

DEAL.—April 14.—For erection of eighteen houses and one new road under the housing scheme on the London Road site, for the Corporation. Contractors may tender for whole or part only of the works. Deposit £2 2s. Mr. T. C. Golder, architect and borough surveyor, Municipal Offices, 18 Queen Street, Deal.

DUFFRYN RHONDDA.—April 18.—The Glyncoirwg Urban District Council invite a firm or lump sum tender per house for building eighty houses at Duffryn Rhondda. Mr. W. P. Jones, Council Offices, Cymmer, Port Talbot.

DURHAM.—April 11.—For blocks of parlour houses (thirty-five) and non-parlour houses (sixty-eight) in brick on the Ushaw Moor site, for the Durham Rural District Council. Send names and £2 2s. deposit by April 11 to Mr. J. G. Burrell, L.R.I.B.A., Market Place Chambers, Durham.

FELTHAM.—April 18.—For erection of fifty houses at Feltham, Middlesex. Deposit £1 1s. The Contracts Branch, H.M. Office of Works, King Charles Street, London, S.W. 1.

HALESOWEN.—April 26.—For erection of houses at Hurst Green, Halesowen, Birmingham. Deposit £1 1s. The Clerk, Council House, Halesowen, or the Contracts Branch, H.M. Office of Works, King Charles Street, S.W. 1.

HARROW-ON-THE-HILL.—April 23.—For erection of a further twelve houses for the Urban District Council. Deposit £1. Mr. J. P. Bennetts, engineer and surveyor, Council Offices, Harrow.

HASLINGDEN.—April 20.—For the whole of the work required in erection and completion of forty-two brick houses on the Long Shoot site and twelve brick houses on the Helmshore site, for the Corporation. Deposit £1 1s. The Borough Surveyor, Municipal Offices, Haslingden, or Mr. A. Brocklehurst, architect, St. James' Chambers, Waterfoot.

HELMSHORE.—For joiners' and slaters' work required in new shed roof to cover 500 square yards of flooring, adjoining Helmshore Station, Lancs (private siding). Mr. E. H. Parkinson, architect, 2a Tyrrel Street, Bradford.

HIGH WYCOMBE.—April 18.—For erection of twenty-eight houses in the Terriers housing scheme, for the Town Council. Contractors may tender for the whole or part. Deposit £1. Mr. T. J. Rushbrooke, borough surveyor, 25 Easton Street, High Wycombe.

LONDON.—April 23.—For erection of sixteen houses on a central site, for the East Ham Borough Council. Deposit £2 2s. Mr. J. Birch, borough engineer, Town Hall, East Ham, E. 6.

LONDON.—April 26.—For erection of a steel-frame and reinforced concrete sub-station on a site known as Lomas Buildings, between Waley Street and Ben Jonson Road, Mile End Old Town, for the Stepney Borough Council. Deposit £1. Mr. B. J. Belsher, A.M.I.C.E., A.M.I.M.E., borough engineer, Municipal Offices, 15 Great Alie Street, Whitechapel, E. 1.

LONDON.—April 27.—For supplying and fixing wood-block flooring at the Union Infirmary, Fulham Road, S.W., for the Guardians of the City of Westminster Union. The Guardians' Offices, Princes Row, Buckingham Palace Road, S.W. 1.

LONDON.—April 27.—For painting, distempering, general repairs, and the erection of a sanitary annexe at their infirmary in Fulham Road, S.W., for the Guardians of the City of Westminster Union. The Guardians' Offices, Princes Row, Buckingham Palace Road, S.W. 1.

LOUGHBOROUGH.—April 19.—For erection of thirty-four houses on Land, Corporation, and Oliver Roads, Loughborough, for the Housing Committee. Deposit £1 1s. Messrs. A. E. King & Co., architects and surveyors, 19 Baxter Gate, Loughborough.

MINEHEAD.—April 29.—For erection of ten cottages on their building site, Cher, for the Minehead Urban District Council. Deposit £2 2s. Mr. A. D. Barron, architect, engineer, and surveyor, The Parade, Minehead.



SPECIFY

**THE MOST EFFICIENT**

# **VAUGHAN'S PURE BITUMEN DAMP-PROOF COURSES**

Made from Highest-Grade Materials.  
Extensively specified for Important  
Contracts, Housing Schemes, etc.

# **ROOFING FELTS**

- "REXOID"** SELF-FINISHED BITUMEN ROOFING.
- "DUREX"** SMOOTH, FLEXIBLE FELT FOR ROOFING AND SARKING.
- "DURITE"** SUPERIOR BITUMEN UNDERSLATING, Etc.

For Samples, etc., apply to Manufacturers :  
**H. R. VAUGHAN & CO. Ltd.,**  
(Dept. A) Works : **GATESHEAD-ON-TYNE.**  
**Preston, Lancs, and Bishop Auckland.**

# **Church Bells**

*"Like Sweet Bells, jangled,  
Out of tune and harsh."  
—SHAKESPEARE.*



*In this quaint old Church—Wimborne Minster—we re-cast eight bells and supplied two new ones—all in perfect tune.*

**SHAKESPEARE** had no liking for bells that were out of tune. There is no reason why anything but sweet music should issue from the belfry tower, for Messrs. Gillett and Johnston, the Bell-founders of Croydon, have replaced the old method of haphazard tuning by one so scientific that every bell, even the smallest, is sent out perfect in tune.

On the same principle—known as Canon Simpson's—old bells which are cracked, or otherwise faulty in tune, can be recast and perfect harmony of tone produced.

*For full particulars of numerous contracts successfully carried out, write to*

**Gillett & Johnston,**  
Founders of many famous bells,  
Established 1844.  
Croydon.

LOW PRICES.

BEST WORK.



**THE BRILLIANT SIGN CO. Ltd.,**  
38 GRAY'S INN ROAD, LONDON.  
18 Mount Street, Manchester. 25 Cookridge Street, Leeds.

WHY BUY FOREIGN PENCILS?

WOLFF'S

**Royal Sovereign**

PENCILS ARE BRITISH MADE



The finest Pencil in the World for Architects, Draughtsmen, and General use because of its smoothness and great durability. Made in all degrees by **THE ROYAL SOVEREIGN PENCIL CO. LTD.,** Falcon Pencil Works, Battersea, S.W. Famous over 100 years. By appointment to H.M. the King. Price 6d. each. Sold by all Stationers.

**"Bitumastic"**  
Regd Trade Mark

**Prevents Rust**

and so lengthens the life of Corrugated Iron, Iron Railings, Steel and Iron Structures, etc. Renders Concrete waterproof and preserves wood.

It lasts longer, covers a greater area, and costs less than lead paints. Send a p.c. for full details.

**WAILES DOVE BITUMASTIC LTD.,**  
Newcastle-on-Tyne, London, Glasgow, Liverpool, Leeds, Cardiff, Hull, Manchester, Birmingham, Lowestoft, Dublin, etc.

Telephones in every office. Telegrams—"BITUMASTIC."



**MIDDLETON.**—April 13.—For erection and completion of twenty-four houses, class B3, types B7 and B8, comprising twelve pairs, for the Town Council. Messrs. T. A. Fitton and Son, architects, 19a Corporation Street, Manchester. The Borough Engineer, Town Hall, Middleton, Lancs.

**MIDDLETON.**—April 13.—For erection and completion of fifty-two houses, class B3, types B1, B2, B3 and B4, in pairs and blocks of four, for the Town Council. Mr. J. H. Sellers, architect, 78 King Street, Manchester. The Borough Engineer, Town Hall, Middleton.

**MORETON-IN-MARSH.**—April 28.—For the erection of twelve cottages at Moreton-in-Marsh, for the Campden Rural District Council. Deposit £2 2s. Mr. H. E. Dicks, M.S.A., architect, Evesham.

**OFFENHAM.**—For erection of fourteen cottages on two sites in the parish of Offenham, for the Evesham Rural District Council. Deposit £2 2s. Mr. R. J. Atkinson, surveyor, Union Offices, Evesham.

**PAULTON.**—April 21.—For erection of twenty-six houses at Paulton, for the Rural District Council of Clutton. Send application by April 14 to Messrs. Petter & Warren, architects, 74 Hendford, Yeovil.

**RAMSGATE.**—May 5.—For erection and completion of twenty-six houses on the Dumpton Road site, for the Corporation. Deposit £2 2s. The Borough Engineer, Albion House, Ramsgate; or Mr. W. Everard Healey, Lic.R.I.B.A., M.S.A., 2a Turner Street, Ramsgate.

**REPTON.**—April 11.—For erection in brickwork of sixty-six houses on the various sites set out hereunder, and for lay-out work in connection therewith, for the Repton Rural District Council, viz.: Parish of Findern, four houses; Hatton, twelve; Repton, eight; Etwall, ten; Mickelover, sixteen; Linton, ten; Hilton, six. Builders may tender for all or any of the above houses. Mr. T. Jenkins, L.R.I.B.A., Arcade Buildings, Station Street, Burton-on-Trent.

**RUFFORD.**—April 14.—For erection and completion of 100 houses of various types in the Parish of Rufford, for the Southwell Rural District Council. Deposit £2 2s. Messrs. Sands and Walker, Milton Chambers, Nottingham.

**ST. ALBANS.**—April 14.—The Commissioners of His Majesty's Works, &c., invite tenders, before 11 A.M. on April 14, for the erection of a telephone exchange at St. Albans. Drawings, specifications, and a copy of the conditions and form of contract may be seen on application to the Postmaster, St. Albans. Bills of quantities and forms of tender may be obtained from the Contracts Branch, H.M. Office of Works, London, S.W. 1, on payment of £1 1s. Cheques should be made payable to The Secretary, H.M. Office of Works. The sums so paid will be returned to those persons who send in tenders in conformity with the conditions.

**SALISBURY.**—For erection of eight pairs of cottages at Landford, five pairs at Middle Winterslow, three pairs at Alderbury, and three pairs at Odstock, for the Salisbury Rural District Council. Mr. M. Harding, architect and surveyor, 65 New Street, Salisbury.

**SETTLE.**—April 14.—For erection of two blocks of four houses, each Type A, and one pair of houses, Type B, or any portion of this number; and also for street-making and surface drainage works, for the Rural District Council. Deposit £1 1s. Mr. T. A. Foxcroft, surveyor, Town Hall, Settle.

**SOUTHAMPTON.**—April 15.—For alterations at the telephone exchange, Southampton. The Manager, Telephone Exchange, Ogle Road, Southampton, or the Director of Contracts, H.M. Office of Works, London, S.W. 1.

**STAMFORD.**—April 16.—For erection of sixty-six houses (in pairs and fours) upon the land south of New Cross Road, for the Town Council. The houses comprise forty-six B type and twenty A type, and the Council are prepared to consider tenders for ten, twelve, twenty, or sixty-six houses. Deposit £2. Mr. F. R. Ryman, borough engineer, Town Hall, Stamford.

**STOW-ON-THE-WOLD.**—For erection of houses as follows, for the Stow-on-the-Wold Rural District Council, viz.: Upper Swell, two houses; Lower Swell, two; Upper Slaughter, one; Evenlode, two; and Naunton, two. Mr. T. Malvern, L.R.I.B.A., architect, 21 Winchcombe Street, Cheltenham.

**STRATFORD-ON-AVON.**—April 30.—For erection of workmen's cottages as follows, for the Stratford-on-Avon Rural District Council, viz.: Easington, six houses; Coppington, two; Fulbroke, two; Hampton Lucy, eight; Hatton Rock, two; Langley, two; Loxley, eight; Snitterfield, eight. Deposit £1 1s. Mr. M. J. Harvey, architect, 50 Arden Street.

**WESTGATE-ON-SEA.**—April 28.—For the second instalment of their housing scheme, as follows: Westgate-on-Sea (Minster Road site)—alternative tenders for eight or sixteen houses; Birchington—eight houses (one block of four and two blocks of two); Minster—ten houses (two blocks of four and one block of two); Acol—four houses, for the Isle of Thanet Rural District Council. Builders may tender for erection of the whole or any number of the houses. Mr. F. J. Cornford, M.S.A., architect, Town Hall Buildings, Westgate-on-Sea.

**WHICKHAM.**—April 14.—For erection of (a) Four pairs of houses "A" type at Swalwell; (b) seventy-two pairs of houses "B" type at Dunstan; (c) seventeen pairs of houses "B" type at Whickham, for the Whickham Urban District Council. Mr. J. B. Renton, surveyor, Whickham.

## TENDERS.

### CARDIFF.

For the erection of the Edward Nicholl Home for Babies, at Penylan, Cardiff. Messrs. Ivor Jones & Percy Thomas, A.A.R.I.B.A., architects, Cardiff.

William Thomas & Co.	£28,560	0	0
D. Davies & Sons	23,990	0	0
Tucker Bros.	22,650	0	0
John Jenkins, Ltd.	22,625	0	0
Henry Billings & Sons	22,600	0	0
A. W. Julian	22,548	0	0
Knox & Wells	22,539	0	0
W. T. Morgan	22,449	0	0
Williams & Hoare	22,199	0	0
W. Symonds & Sons, Ltd.	22,000	0	0
F. J. THOMAS, Cardiff (accepted)	21,944	0	0

### IPSWICH.

For the erection of twenty bungalows, ten to be in brick and ten in concrete, on the Racecourse site, for the Corporation. Mr. E. Y. Harrison, M.I.C.E., borough engineer and surveyor, Ipswich.

William Harborough, brick £1,008, concrete £1,002; P. J. Turner, £985 and £877; V. A. Marriott, £970 and £965; Faisey & Son, brick, £950; R. S. Smith, brick, £931; A. W. Fisk, brick, £905 9s. 3d.; E. Catchpole, £882 and £892; R. G. Seaman, £875 7s. 7d.; Long & Watling, concrete, £843 10s.; Cubitt & Gotts, £850 and £838; the Building Guild, brick, £850; Pollard & Skeritt,\* £742 2s. and £753 13s. 9d.

\* Accepted for erecting the twenty bungalows in brick at £742 2s. each.

### MICKLETON, &c.

For the erection and completion of sixteen houses, class A, tiled roofs, and twenty-four houses, class A, slated roofs, at Mickleton, six at Quinton, and six at Admington, for the Campden Rural District Council. Mr. W. L. Lissaman, M.S.A., architect, Broadway, Worcs.

Smith & Sons	£40,560	0	0
Newell & Sons	36,400	0	0
H. Emnall	35,720	0	0
Epsley & Co., Ltd.	34,640	0	0
Cockerill & Jelfs	33,448	0	0
Surman & Sons	33,424	0	0
J. Clements	33,360	0	0
F. E. Wallis	33,280	0	0
H. M. GRANT & Co., LTD., Birmingham (provisionally accepted)	32,352	0	0

### SHERE.

For the erection of forty-two houses on four sites, in the parish of Shere, for the Guildford Rural District Council. Mr. J. H. Norris, architect, Guildford.

H. D. Pullen & Co.	£47,752	0	0
R. Cook & Sons	37,596	0	0
W. Jones & Sons	37,164	0	0
S. Ellis	37,037	0	0
Bunning & Fitton Adams	36,633	0	0
F. Milton & Sons	36,374	0	0
T. Swayne & Son	35,974	0	0
Chapman, Lowry & Puttick, Ltd.	35,638	0	0
W. G. TARRANT, LTD., Byfleet (provisionally accepted)	35,160	0	0

### YORK.

For the construction of sewers, &c., on their Tang Hall estate, for the Housing Committee.

WARREN, Seacombe (accepted)	£4,376	16	6
-----------------------------	--------	----	---



**DURESCO** WASHABLE WATER PAINT

*The FIRST in the Field. The FOREMOST ever since.*

FORTY Years' Experience has stamped

**DURESCO**

as being the PREMIER Water Paint

**The Silicate Paint Co. & Co. Ltd.**  
J. B. ORR & Co. Ltd.  
CHARLTON, LONDON, S.E.

*As permanent  
as the Pyramids.*



RED HAND



TRADE MARK

*Anderson's*  
**"ROK"**  
ROOFING

On private dwellings, public buildings, schools, shops and offices throughout the world, "Rok Roofing" is withstanding the severest tests of weather and climate.

For pitched, flat, and circular roofs, where moderate cost and utmost permanence are essential, it solves the builder's Roofing Problem.

Our world-wide experience is at your service.

*Illustrated Catalogue*  
POST FREE ON REQUEST

**D. ANDERSON & SON, Ltd.**  
(Dept. O), LAGAN FELT WORKS, BELFAST.  
Roach Road Works, Old Ford, London.



**THE LONDON ELECTRIC  
WIRE COMPANY and SMITHS  
LIMITED**

**The London Electric  
Wire Co. and Smiths  
LIMITED,**

Playhouse Yard, Golden Lane,  
LONDON, E.C. 1

FOR

RUBBER INSULATED WIRES  
and CABLES  
ARMATURE and MAGNET  
WIRES and STRIPS

ENAMEL INSULATED WIRES  
HIGH RESISTANCE WIRES  
TELEPHONE CABLES, WIRES  
and CORDS

AERIAL CABLES  
FLEXIBLE LIGHTING CORDS  
BELL WIRES FUSE WIRES  
DYNAMO BRUSHES and ARC  
LAMP and BRUSH FLEXIBLES

Telephone: Clerkenwell 1388 & 9.  
Telegrams: "Electric, London."

**Frederick Smith & Co.**

(Incorporated in the London  
Electric Wire Co. and Smiths  
Limited),

Anaconda Works,  
SALFORD, MANCHESTER

FOR

HIGH CONDUCTIVITY  
COPPER WIRE and STRIP  
HARD DRAWN H.C. COPPER  
LINE WIRE and TROLLEY  
WIRE

SPECIAL NON-FOULING  
SECTIONS  
PHOSPHOR BRONZE SPRING  
WIRE

BRONZE TROLLEY WIRE  
Maximum Tensile Strain and  
Durability  
SILICIUM BRONZE WIRE

Telephone: Manchester Central 4040.  
Telegrams: "Anaconda, Manchester."

Contractors to H.M. Government and to all the leading  
Electric Light and Telephone Companies.

Price Lists and Special Quotations on application.

CODES: { A B C 5th Edition. BENTLEY'S, WESTERN UNION  
(Univ. and 5-Letter), and MARCONI.



# THE ARCHITECT

FOUNDED 1869.

Incorporating "The Contract Reporter," 1885.  
 "The Builder's Reporter and Engineering Times."  
 "The Building Trade," 1913.

FRIDAY, APRIL 15, 1921.

*Owing to the increasing demand for back numbers we are compelled to give the following notice:—*

*All numbers for the past twelve months 9d. each, previous to that date 1s. each.*

## TENDERS, &c.

\* \* *As great disappointment is frequently expressed at the non-appearance of Contracts Open, Tenders, &c., it is particularly requested that information of this description be forwarded to the Office, Imperial Buildings, Ludgate Circus, London, E.C., not later than 2 P.M. on Wednesdays.*

## CONTRACTS OPEN.

**ASHBY-DE-LA-ZOUCH.**—April 28.—For erection and completion of houses of two types within their area as follows:—Twenty-six houses on the Measham lay-out, Swepstone Lane; twenty houses on the Oakthorpe lay-out; together with fencing, footpaths, drainage and wells on each lay-out, for the Ashby-de-la-Zouch Rural District Council. Deposit £2 2s. Mr. W. B. Oxley, A.R.I.B.A., architect, 33 Friar Lane, Leicester.

**AUCHTERMUCHTY.**—April 30.—For the erection of ten houses (three and four apartments) for the Town Council, viz.: mason and brick work, carpenter and joiner work, glazier work, plumber work, plaster and cement work, roofing work, and painter work. Mr. R. Fairlie, architect, 14 Randolph Place, Edinburgh.

**BAMPTON, DEVON.**—April 20.—For certain alterations (including mason's, plumber's, and carpenter's work) and repairs to Nos. 1 and 2 West Street, Bampton, for the trustees of the Bampton National School. The specification may be seen, by appointment, at the Vicarage. Tenders, sealed and marked "Houses," must be sent to the Correspondent, Bampton Vicarage, by April 20. It must be understood that the contractor whose tender is accepted shall begin the work forthwith.

**BARNET.**—April 29.—For erection in brick construction of twenty-four houses at Furzehill Road, Boreham Wood, and twenty houses at Watling Street, Elstree, Midland Station, for the Barnet Rural District Council. Deposit £2 2s. The Surveyor, Council Offices, Boreham Wood.

**BLAYDON.**—April 18.—For erection of 200 houses at Chopwell, comprising: ten pairs A2 type; sixty-five pairs A3 type; twenty pairs B3 type; five pairs B4 type, for the Blaydon Urban District Council. The Council will consider tenders for the whole or for small groups of houses. Deposit £1 1s. The Surveyor, Urban District Council Offices, Blaydon-on-Tyne.

**BOOTLE.**—April 19.—For the re-erection, adaptation and fitting up of two army huts and the provision of a new recreation-room to match, at the Linacre Hospital, for the Health Committee. The Borough Engineer, Town Hall, Bootle, Lancs.

**BOURNE.**—April 26.—For erection of a twelve-bed pavilion for consumptives, for the Bourne Rural District Council. Deposit £1 1s. The Surveyor's Office, West Street, Bourne, Lincolnshire.

**BRANDON.**—April 21.—For erection of twelve houses at Brandon, in brickwork or patent flint-faced concrete slabs, for the Rural District Council. Deposit £2 2s. Messrs. Hunt & Coates, architects, 51 Abbeygate Street, Bury St. Edmunds.

**CANTERBURY.**—April 21.—For erection and completion of sixty-eight houses (to be erected in pairs and blocks of four), twenty-eight parlour and forty non-parlour type, on land situate off Forty Acres Road, St. Dunstan's Street, for the City Council. Deposit £2 2s. Mr. F. H. Dore, architect, 25 Watling Street, Canterbury.

**CARLTON.**—April 27.—For erection of the following houses, for the Urban District Council, viz.: Fourteen Carlton Hill North, types, parlour; eight Carlton Hill South; eight Standhill Road; 139 Conway Road, all types; 162 Valley Road, all types. Deposit £2 2s. The Surveyor's Office, Manor Road, Carlton, Nottingham.

**CHESTER-LE-STREET.**—April 23.—For alterations and additions to Chester-le-Street police station, for the Durham County Council. Mr. A. E. Brookes, county surveyor, Shire Hall, Durham.

**CHIPPING NORTON.**—April 21.—For erection of houses in the following parishes, for the Chipping Norton Rural District Council, viz.: Chadlington, 4 stone-built houses; Charlbury, 16 stone houses and 14 brick houses; Kingham, 10 brick houses; Great Rollright, 6 brick houses. Deposit £3 3s. Mr. W. A. Daft, architect and surveyor, 9 New Road, Oxford.

**DARLINGTON.**—April 19.—For erection of ninety-six houses for the Corporation. Builders may tender for the whole or part of the blocks of houses to be erected. Deposit £1 1s. Mr. G. Winter, borough surveyor, Town Hall, Darlington.

**DINAS POWIS.**—April 26.—For erection of twenty houses in Brassey Road, Dinas Powis, for the Llandaff and Dinas Powis Rural District Council. Deposit £3 3s. Mr. J. Parry Williams, architect, Park House, 20 Park Place, Cardiff.

**DUNFERMLINE.**—April 30.—For the following works in connection with the erection of 158 houses for the Brucefield housing scheme (second development), for the Town Council, viz.: excavator and brick work; carpenter; joiner and ironmonger work; glazier work; slater and rough cast work; plumber and gasfitter work; plaster work; and painter work. Deposit £2 2s. The Burgh Engineer, City Chambers, Dunfermline.

**HALESOWEN.**—April 26.—For erection of houses at Hurst Green, Halesowen, Birmingham. Deposit £1 1s. The Clerk, Council House, Halesowen, or the Contracts Branch, H.M. Office of Works, King Charles Street, S.W. 1.

**HARROW-ON-THE-HILL.**—April 23.—For erection of a further twelve houses for the Urban District Council. Deposit £1. Mr. J. P. Bennetts, engineer and surveyor, Council Offices, Harrow.

**HASLINGDEN.**—April 20.—For the whole of the work required in erection and completion of forty-two brick houses on the Long Shoot site and twelve brick houses on the Helmsore site, for the Corporation. Deposit £1 1s. The Borough Surveyor, Municipal Offices, Haslingden, or Mr. A. Brocklehurst, architect, St. James' Chambers, Waterfoot.

**HAYES.**—May 3.—For erection of a Post Office at Hayes, Middlesex. Deposit £1 1s. The Contracts Branch, H.M. Office of Works, King Charles Street, S.W. 1.

**LLANIDLOES.**—April 25.—For works of improvement, alterations and additions at the Glandwr (Llanidloes) Council school, for the Montgomeryshire Education Committee. Deposit £1 1s. Mr. Ll. Phillips, director and clerk, Education Office, Newtown.

**LONDON.**—April 23.—For erection of sixteen houses on a central site, for the East Ham Borough Council. Deposit £2 2s. Mr. J. Birch, borough engineer, Town Hall, East Ham, E. 6.

**LONDON.**—April 26.—For erection of a steel-frame and reinforced concrete sub-station on a site known as Lomas Buildings, between Waley Street and Ben Jonson Road, Mile End Old Town, for the Stepney Borough Council. Deposit £1. Mr. B. J. Belsher, A.M.I.C.E., A.M.I.M.E., borough engineer, Municipal Offices, 15 Great Alie Street, Whitechapel, E. 1.

**LONDON.**—April 27.—For supplying and fixing wood-block flooring at the Union Infirmary, Fulham Road, S.W., for the Guardians of the City of Westminster Union. The Guardians' Offices, Princes Row, Buckingham Palace Road, S.W. 1.

**LONDON.**—April 27.—For painting, distempering, general repairs, and the erection of a sanitary annexe at their infirmary in Fulham Road, S.W., for the Guardians of the City of Westminster Union. The Guardians' Offices, Princes Row, Buckingham Palace Road, S.W. 1.

**LONDON.**—April 28.—For erection of houses as under, for the Ealing Town Council: Contract No. 5, thirty-nine houses; Contract No. 6, thirty-one houses; Contract No. 7, twenty-four houses. Deposit £2 2s. each contract. Mr. W. R. Hicks, A.M.Inst.C.E., borough engineer, Town Hall, Ealing, W. 5.





EIGHT CHIMNEYS RECENTLY BUILT BY CUSTODIS, LTD.

Enquiries invited.

CUSTODIS, LTD.,

119 Victoria Street,  
WESTMINSTER, S.W.1.

TELEGRAMS—Custodimus Sowest.  
PHONE—779 Victoria.

LOW PRICES.

BEST WORK.



THE BRILLIANT SIGN CO. Ltd.,  
38 GRAY'S INN ROAD, LONDON.

18 Mount Street, Manchester.

25 Cookridge Street, Leeds.

## BOULTONS

Contractors for  
TILING (Walls and Floor)  
MARBLEWORK  
MOSAICS  
GRANITE, Etc.

INQUIRIES INVITED

JOHN BOULTON & CO. Ltd.

13 Eastcastle Street, OXFORD STREET, LONDON, W.1  
Telephone: MUSEUM 2350.

Established



A.D. 1750.

## SHAW & SONS

Drawing Office Stationers,  
Lithographers, Printers,  
Account Book Makers,  
Engravers & Relief Stampers.



BILLS of QUANTITIES and SPECIFICATIONS  
LITHOGRAPHED AND ELECTROGRAPHED  
WITH UTMOST DISPATCH.

**PLANS** LITHOGRAPHED  
and COLOURED

DRAWING PAPERS, TRACING PAPERS, SECTIONAL  
PAPERS, RULED FOOLSCAP PAPERS, COLOURS,  
BRUSHES, ARCHITECTS' CERTIFICATE BOOKS,  
ACCOUNT FORMS, PHOTO PRINTS OF TRACING,  
ALL KINDS OF GENERAL OFFICE STATIONERY.

SHAW & SONS, 7, 8, & 9 FETTER LANE,  
FLEET STREET, LONDON, E.C. 4.

“*Bitumastic*”  
Regd Trade Mark

### Prevents Rust

and so lengthens the life of Corrugated Iron, Iron Railings, Steel and Iron Structures, etc. Renders Concrete waterproof and preserves wood.

It lasts longer, covers a greater area, and costs less than lead paints. Send a p.c. for full details.

**WAILES DOVE BITUMASTIC LTD.,**  
Newcastle-on-Tyne, London, Glasgow, Liverpool,  
Leeds, Cardiff, Hull, Manchester, Birmingham,  
Lowestoft, Dublin, etc.

Telephones in every office. Telegrams—"BITUMASTIC."



**MERE, WILTS.**—April 21.—For erection of houses in the following parishes, for the Mere Rural District Council: Kilmington 6, Stourton 6, Zeals 4, as the first instalment of the scheme. Mr. W. A. Harvey, F.R.I.B.A., 5 Bennett's Hill, Birmingham; or Mr. R. H. Hiscott, clerk, Council Offices, Mere, Wilts.

**MINEHEAD.**—April 29.—For erection of ten cottages on their building site, Cher, for the Minehead Urban District Council. Deposit £2 2s. Mr. A. D. Barron, architect, engineer, and surveyor, The Parade, Minehead.

**NELSON.**—For proposed alterations and additions to Wesleyan chapel and schools, Cooper Street. Mr. A. Brocklehurst, architect, Derby Chambers, 6 Fleet Street, Bury.

**NOTTINGHAM.**—April 20.—For lump-sum contracts for the erection and completion of the following groups of houses already approved by the City Council, for the Housing Committee, viz.: Gordon Road and Carlton Road site—Group A, 8 houses; B, 8. Beauvale Road, Wilford Grove site—Group C, 8; D, 8; E, 8; F, 8; G, 8. Highbury Road, Bulwell, site—Group H, 28; J, 10; K, 10; L, 10; M, 12; N, 4; O, 8; P, 8. Deposit £1 1s. The Housing Department, Trinity Square, Nottingham.

**ORMSKIRK.**—April 21.—For the erection of an operating-theatre and certain drainage at the Ormskirk Cottage Hospital; for the Committee. Deposit £1 1s. Mr. E. Ware, architect, 43 Imperial Buildings, 20 Exchange Street East, Liverpool.

**PAIGNTON.**—For demolition of farm buildings at Preston and the erection of eight parlour type houses (four pairs) at Preston, for the Paignton Urban District Council. Messrs. Appleton & Johnson, architects, 35 Torwood Street, Torquay, and Hayes, Dartmouth Road, Paignton.

**RAMSGATE.**—May 5.—For erection and completion of twenty-six houses on the Dumption Road site, for the Corporation. Deposit £2 2s. The Borough Engineer, Albion House, Ramsgate; or Mr. W. Everard Healey, Lic.R.I.B.A., M.S.A., 2a Turner Street, Ramsgate.

**SHIPLEY.**—April 25.—For the erection of fifty-six houses, of six types, at Hirst Wood, for the Urban District Council. Deposit £1. The Architect, Council Offices, Somerset House, Shipley, Yorks.

**SLAITHWAITE.**—April 21.—For erection of six houses at Slaithwaite, for the Urban District Council. Messrs. John Kirk & Sons, architects, Market Place, Huddersfield, or Messrs. Joseph Berry & Sons, architects and surveyors, 3 Market Place, Huddersfield.

**STRATFORD-ON-AVON.**—April 30.—For erection of workmen's cottages as follows, for the Stratford-on-Avon Rural District Council, viz.: Easington, six houses; Coppington, two; Fulbroke, two; Hampton Lucy, eight; Hatton Rock, two; Langley, two; Loxley, eight; Snitterfield, eight. Deposit £1 1s. Mr. M. J. Harvey, architect, 50 Arden Street.

**THIRSK.**—For the whole of the trades in the erection and completion of the following: Twelve new houses at Topcliffe and six new houses at South Otterington, for the Thirsk Rural District Council. Mr. W. Swarbrick, clerk, Council Office, Finkle Street, Thirsk, Yorks.

**TOTTINGTON.**—April 30.—For the following contracts for erection of houses for the Walshaw housing scheme, as follows, for the Tottington Urban District Council: Contract No. 2—for 28 houses, type A, in blocks of four; 3—for 14 houses, type B, in blocks of two. Deposit £1 1s. The Surveyor to the Council, Town Hall, Tottington, near Bury.

**WALSHAM-LE-WILLOWS, SUFFOLK.**—April 27.—For erection of eight cottages at Walsham-le-Willocks, for the Thedwastre Rural District Council. Deposit £3 3s. Messrs. Hunt & Coates, architects, 51 Abbeygate Street, Bury St. Edmund's, and Stowmarket.

**WATFORD.**—April 25.—For the conversion of premises at Watford for a temporary telephone exchange. Deposit £1 1s. The Post Office at Watford or the Contracts Branch, H.M. Office of Works, King Charles Street, London, S.W. 1.

**WESTGATE-ON-SEA.**—April 28.—For the second instalment of their housing scheme, as follows: Westgate-on-Sea (Minster Road site)—alternative tenders for eight or sixteen houses; Birchington—eight houses (one block of four and two blocks of two); Minster—ten houses (two blocks of four and one block of two); Acol—four houses, for the Isle of Thanet Rural District Council. Builders may tender for erection of the whole or any number of the houses. Mr. F. J. Cornford, M.S.A., architect, Town Hall Buildings, Westgate-on-Sea.

## TENDERS.

### EASTHAMPTSTEAD.

For the erection of eight houses on the old football field, Winkfield, for the Easthampstead District Council.

William Watson	£9,234	0	0
Wheeler Bros.	8,700	0	0
Spear and King	8,422	0	0
Norris & Co.	8,392	0	0
A. E. Jones	8,336	0	0
Purnell & Clifford	8,264	0	0
Charman & Son	8,236	0	0
Hinkins & Frewin	7,946	0	0
Poor & Son, Hartley Wintney (accepted)	7,646	0	0

### HULL.

For the erection of pavilion at Infectious Diseases Hospital at Cottingham Castle Estate, for the Town Council.

Stamp & Son	£17,576	0	0
J. Houlton & Sons, Ltd.	16,444	0	0
J. T. Levitt	16,155	0	0
Holliday and Barker	15,440	0	0
P. T. Kettlewell	14,987	0	0
J. H. Fenwick	14,360	0	0
F. WHITING, Cottingham (accepted)	14,200	0	0

### LONDON.

For electric-light wiring and installation at the Disinfecting Station of the Metropolitan Borough of Islington.

Mr. E. C. P. Monson, F.R.I.B.A., F.S.I., architect to the Council, Finsbury Pavement House, E.C. 2.

Mann Egerton & Co., Ltd.	£356	0	0
Conalt Electrical Co.	262	0	0
Hopkins & Sons (Clerkenwell)	250	0	0
Goodwin, A. F., & Co.	233	10	0
Farndons Power & General Electrical Co., Ltd.	232	0	0
Tyler & Freeman	211	7	6
Clarke & Co., Ltd.	209	15	0
Cunningham & Co.	197	0	0
C. Cooper & Co., Ltd.	195	0	0
Taylor & Co.	186	10	6
Martin, H. E.	175	0	0
Electric Productions Co., Ltd.	174	0	0
Semco, Ltd.	165	0	0
Jackson & Boyce	161	0	0
Tredegars, Ltd.	152	5	0
Morris, P. D.	146	3	0

CLUTTON & SON, Hornsey Rise, N. 19 (accepted) 139 0 0

For the erection of garage and workshop at the Liverpool Road Depot for the Islington Borough Council. Mr.

E. C. P. Monson, F.R.I.B.A., F.S.I., Architect to the Council, Finsbury Pavement House, E.C. 2.

Hooper & Hooper	£25,700	0	0
Ferris Bros.	25,000	0	0
C. H. Hunt & Son	24,499	0	0
Thos. Shillitoe	23,500	0	
Architect's Estimate	21,280	0	0
Council's Building Department	19,918	16	0
Geo. Slade & Co., Ltd.	19,500	0	0
GEO. BOLLOM, Acton (accepted)	18,937	0	0

## Progress of Housing Schemes.

NEW Housing Schemes submitted to the Ministry of Health during the fortnight ended April 1 numbered 17, bringing the total number of schemes submitted to 11,488. The schemes approved now number 9,032, and comprise about 57,697 acres.

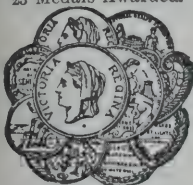
Forty-one lay-out schemes were submitted and 40 were approved during the fortnight, bringing the total number of lay-outs submitted to 7,482 and number approved to 6,925.

House plans representing 731 houses were submitted and plans for 799 houses approved. The total number of houses represented in all plans now submitted is 294,724 and in the plans approved 275,868.

During the fortnight tenders were submitted for 2,290 houses. Tenders for 675 were approved, bringing the total number of houses in tenders submitted to 192,001 and in tenders approved to 176,242. Contracts have been signed for 155,599 houses.

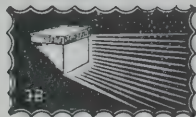


23 Medals Awarded.



## HAYWARDS LIGHTS & Building Specialities.

Pavement Lights.  
Iron Staircases.  
Heating and Ventilating.  
Steel Casements and Sashes.



Have Daylight and Fresh Air, and Clean Bright Places.  
Collapsible Gates.  
Puttyless Roof Glazings.  
Skylights and Lanterns.  
Lead Lights & "Copperlites."



**HAYWARDS, LTD.** Engineers and Ironfounders. **UNION ST., BOROUGH, LONDON, S.E.**

Tele: Hop 3642 (2 Lines).

## SPRAGUE-HAYCOCK

(PRINTERS) LIMITED.

PRINTERS AND LITHOGRAPHERS.

Bills of Quantities, Estate Plans, Particulars of Sale, Reproductions of Architectural Drawings, and every class of Lithographic and Letterpress Printing.

*Efficiency, Promptitude & Excellence."*

NOTE ONLY ADDRESS:—

9 & 70 Dean St., Soho, London, W. 1.

Telephone: GERRARD 3274.

## MODELLED PLASTER

COMPO and CARTON-PIERRE ORNAMENTS.

CORNICES, CAPITALS, FRIEZES, TRUSSES, MANTELS, OVERMANTELS, MOULDINGS.

**J. BAIRD & CO.,**

110-112 DISRAELI ROAD, PUTNEY, S.W. 15.

Phone: Putney 769.

## LIGHTING, HEATING and POWER INSTALLATIONS

We cater specially for THE TRADE in all kinds of Electrical Work.

**THE CENTRAL LONDON ELECTRICAL INSTALLATION & MAINTENANCE CO.**

Phone—Museum 7119.

29 BEDFORD ROW, W.C.



SECURITY

**THE LONDON & LANCASHIRE INSURANCE CO. LTD.**

£9,304,732

Head Offices: { 45 Dale Street, Liverpool.  
155 Leadenhall Street, London, E.C. 3.

Chief Administration—

5 & 7 Chancery Lane, London, W.C. 2.

**FIRE. CONSEQUENTIAL LOSS. BURGLARY. ACCIDENTS. MOTOR CARS. EMPLOYERS' LIABILITY. MARINE.**

Insurance against BOILER EXPLOSION and ENGINE BREAKDOWN.

For PHOTOGRAPHY of all kinds,  
SEND TO

**LANGFIER**

Commercial Dept.,

343 Finchley Rd., Hampstead, N.W. 3

Phone: 1250 HAMPSTEAD.

**Second-hand Theodolites. Second-hand Levels.**

**Drawing Instruments.**

**CLARKSONS** { 338 HIGH HOLBORN LONDON, W.C.

## RICHD. D. BATCHELOR WATER

Artesian & Consulting Well Engineer.

for Towns, Estates, Factories, &c.

Complete Installations.

73 Queen Victoria St., London, and Artois Works, Chatham.

Telegrams { Watershed, Chatham.  
Boreholes Cent, London.

ESTABLISHED OVER A CENTURY.

Telephones { 4725 City.  
71 Chatham

## Ogilvie & Co.

Many years connected with the late firm of W. H. Lascelles & Co., of Bunhill Row. Telephone Dalston 1388.

Mildmay Avenue, Islington, N.

**EXPERTS IN HIGH-CLASS JOINERY. Alterations & Decorations.** ESTIMATES FREE.

## WELDON STONE.

A WEATHER STONE OF THE FIRST QUALITY. Suitable for all kinds of BUILDING and ORNAMENTAL WORK, as testified by its use for upwards of three centuries.

WELDON STONE tools with facility, and combines CHEAPNESS with GREAT DURABILITY and EVEN COLOUR. For Prices and other Particulars apply to F. St. B. GREGORIE, WELDON STONE QUARRIES, WELDON, KETTERING.

<b>LAUNDRY MACHINERY</b> Catalogue (231) Free.	
<b>COOKING APPARATUS.</b>	<b>BATHS, WASH-HOUSE FITTINGS</b>
<b>T. BRADFORD &amp; CO.</b> LONDON, LIVERPOOL, MANCHESTER	

## THE British Traders' Association

For the Protection of the Building and Hardware Trades.

Managers: **CORFIELD & CRIPWELL**  
119 Finsbury Pavement, LONDON, E.C.  
12 Cherry Street, BIRMINGHAM.

A subscription of £1 5s. per annum entitles the Member to 10 Status Reports, to the Collection of 10 Accounts in England and Wales free of Commission, and to any registered information on the books. Continuous Reports a Speciality. Weekly Gazette issued. Membership limited to Wholesale Firms.

**STATUS INQUIRIES, DEBT RECOVERY, INVESTIGATIONS AND INSOLVENCY DEPARTMENTS.**

## LIGHTNING CONDUCTORS.

Wholesale Manufacturers and Erectors.

**W. J. FURSE & CO.**  
TRAFFIC STREET, NOTTINGHAM.

Mill Chimneys Erected and Repaired. Church Spires Restored  
Telegrams: "FURSE, NOTTINGHAM."

## WROT IRONWORK.

Gates and Railings, Verandahs and Porches, Builders' Ironwork, General Smithing and Forgings.  
**CONSTRUCTIONAL WORK.**

Wire Rope Suspension Bridges, Roof Principals, Doors, Staircases, and General Framed Structures.

**E. W. SWEET & CO., Engineers,**  
FISHPONDS, BRISTOL.

Special attention given to Repetition Work.

## "COATOSTONE"

Effect of Natural Stone. Waterproof. Any painter can use it.

PRICE LISTS, ETC., FROM THE MAKERS:

**THE COATOSTONE DECORATION CO.**  
9a Little James St., Gray's Inn Rd., London, W. 4. L

## ALEX. FINDLAY & CO. LTD.,

MOTHERWELL, SCOTLAND.

**STEEL ROOF AND BRIDGE BUILDERS. STRUCTURAL ENGINEERS.**

Contractors for the **Main Buildings**

and **Great Stadium** for the

Franco-British Exhibition, London, 1908.  
LONDON OFFICE: 9 VICTORIA ST., S.W.

<b>D R A I N S</b>	<b>NO CURE, NO PAY</b>	<b>D R A I N S</b>
	WE REPAIR DRAINS WITHOUT REMOVAL OF FLOORS, etc., and guarantee them sound and watertight.	
	Reliance Drain Repairing Co. Ltd. Drainage Contractors, 9 Lonsdale Chambers, 27 Chancery Lane, W.C. 2	

## FOR Architectural Castings and Ironwork

Send Inquiries to

**W. A. BAKER & CO. (1910), LTD.**  
NEWPORT, MON.

## KINNEAR

PATENT STEEL ROLLING

## SHUTTERS

for

Car and Bus Depots,  
Generating Stations,  
Boiler Houses,  
Harbour Warehouses  
Core Ovens,  
Garages, and  
Entrances Generally.

On Admiralty, War Office and other Lists.

**ARTHUR L. GIBSON**

Radnor Works, TWICKENHAM

GLASGOW: MANCHESTER:

121 West George St. 90 Deansgate.



# THE ARCHITECT

FOUNDED 1869.

Incorporating "The Contract Reporter," 1885.  
"The Builder's Reporter and Engineering Times."  
"The Building Trade," 1913.

FRIDAY, APRIL 22, 1921.

Owing to the increasing demand for back numbers we are compelled to give the following notice:—

All numbers for the past twelve months 9d. each, previous to that date 1s. each.

## TENDERS, &c.

\*. As great disappointment is frequently expressed at the non-appearance of Contracts Open, Tenders, &c., it is particularly requested that information of this description be forwarded to the Office, Imperial Buildings, Ludgate Circus, London, E.C., not later than 2 P.M. on Wednesdays.

## CONTRACTS OPEN.

ALNWICK.—May 2.—For the works required in making a ladies' lavatory and cloakroom at the Shambles, for the Alnwick Rural District Council. Mr. J. Temple Robson, F.S.I., town surveyor, Council Offices, Green Bat, Alnwick.

ASHBY-DE-LA-ZOUCH.—April 28.—For erection and completion of houses of two types within their area as follows:—Twenty-six houses on the Measham lay-out, Swepstone Lane; twenty houses on the Oakthorpe lay-out; together with fencing, footpaths, drainage and wells on each lay-out, for the Ashby-de-la-Zouch Rural District Council. Deposit £2 2s. Mr. W. B. Oxley, A.R.I.B.A., architect, 33 Friar Lane, Leicester.

BARKING.—April 28.—For erection of a caretaker's cottage at the new special schools centre, Faircross Estate, for the Barking Town Urban District Council (Education Committee). Deposit £3 3s. Mr. C. J. Dawson, F.R.I.B.A., Committee's architect, Clock House Chambers, Barking.

BAENET.—April 29.—For erection in brick construction of twenty-four houses at Furzehill Road, Boreham Wood, and twenty houses at Watling Street, Elstree, Midland Station, for the Barnet Rural District Council. Deposit £2 2s. The Surveyor, Council Offices, Boreham Wood.

BOURNE.—April 27.—For the erection of cottages in the following parishes: Market Deeping, four cottages; and Deeping St. James, eight cottages, for the Bourne Rural District Council. Deposit £1 1s. The Surveyor's Office, West Street, Bourne.

BRADFORD.—For the work in connection with the erection of boiler house, &c., at the Bowling Park Institution, for the Bradford Board of Guardians. Mr. F. Holland, engineer and architect, 22 Manor Row, Bradford.

CARLTON.—April 27.—For erection of the following houses, for the Urban District Council, viz.: Fourteen Carlton Hill North, types, parlour; eight Carlton Hill South; eight Standhill Road; 139 Conway Road, all types; 162 Valley Road, all types. Deposit £2 2s. The Surveyor's Office, Manor Road, Carlton, Nottingham.

CARNABY, YORKS.—May 7.—For erection of fourteen houses and thirteen sets of farm buildings, at Wilsthorpe Estate, Carnaby, near Bridlington, for the East Riding of Yorkshire County Council. The Wilsthorpe Farm, Bridlington, and the County Land Agent, County Hall, Beverley.

CHESTERFIELD.—April 25.—For erection of sixty-one houses on the St. Augustine's Road site, in three contracts, namely: No. (1) eighteen houses, type A; (2) forty-one houses, type B; and (3) two houses, type B4, for the Corporation. Contractors may tender for the whole or any one contract. Send application by April 25 to Messrs. W. H. Wagstaff and Sons, architects, 57 Saltergate, Chesterfield.

DARTFORD.—The Dartford Rural District Council are prepared to receive the names of contractors willing to tender for erection of houses in the following parishes, viz.:

Farningham, Eynsford, Horton Kirby, Ridley and Sutton at Hone. Deposit £2 2s. Mr. F. Hall-Jones, architect, Parliament Mansions, Victoria Street, S.W. 1.

DINAS POWIS.—April 26.—For erection of twenty houses in Brassey Road, Dinas Powis, for the Llandaff and Dinas Powis Rural District Council. Deposit £3 3s. Mr. J. Parry Williams, architect, Park House, 20 Park Place, Cardiff.

DUNFERMLINE.—April 30.—For the following works in connection with the erection of 158 houses for the Brucefield housing scheme (second development), for the Town Council, viz.: excavator and brick work; carpenter, joiner and ironmonger work; glazier work; slater and rough cast work; plumber and gasfitter work; plaster work; and painter work. Deposit £2 2s. The Burgh Engineer, City Chambers, Dunfermline.

DURHAM.—April 30.—For erection of two pairs of semi-detached cottages, together with drains, paths, and fencing in connection therewith, at Nevilledale, in the City of Durham, for the Durham County Council. Mr. A. E. Brookes, M.I.C.E., county surveyor and architect, Shire Hall, Durham.

ELY, CARDIFF.—April 29.—For erection of semi-detached houses at Ely, for the Cardiff Corporation. Deposit £2 2s. Mr. E. J. Elford, M.I.C.E., city architect, City Hall, Cardiff.

FRIZINGTON.—May 6.—For erection of thirty houses, or any smaller number not being less than ten, at Howgate, Frizington, for the Arleedon and Frizington Urban District Council. The Surveyor, Council Office, Frizington, Cumberland.

HALNAKER.—May 2.—For erection of four houses at Halnaker, in the parish of Boxgrove, for the Westhampnett Rural District Council. Deposit £1 1s. Mr. J. Dovaston, A.R.I.B.A., M.C.I., Pallant House, Chichester.

HEANOR.—May 2.—For erection and completion of twenty-eight houses in Ilkeston Road, together with fencing, footpaths and drainage in connection with same, for the Heanor Urban District Council. Tenders may be submitted for one or more pairs or for the whole of the number. Deposit £1 1s. Messrs. T. Bamber & Son, architects, Derby Road, Heanor.

HINCKLEY.—April 30.—For erection of twelve houses in the parish of Burbage and six houses in the parish of Higham-on-the-Hill, for the Hinckley Rural District Council. Deposit £2 2s. Mr. C. H. Wright, C.E., architect and surveyor, Sharnford, near Hinckley.

HUNTINGTON, STAFFS.—May 4.—For erection of a further 100 class A houses at Huntington, Staffordshire, for the Cannock Rural District Council. Mr. H. M. Whitehead, director of housing, Penkridge, near Stafford.

KINGSTON-UPON-THAMES.—May 4.—For erection on their housing site of twelve houses, for the Corporation. Deposit £1 1s. The Borough Surveyor, Town Hall, Kingston-upon-Thames.

LONDON.—April 28.—For erection of houses as under, for the Ealing Town Council: Contract No. 5, thirty-nine houses; Contract No. 6, thirty-one houses; Contract No. 7, twenty-four houses. Deposit £2 2s. each contract. Mr. W. R. Hicks, A.M.Inst.C.E., borough engineer, Town Hall, Ealing, W. 5.

LOUGHBOROUGH.—April 30.—For erection of the bell tower forming the memorial in the Queen's Park, for the Loughborough War Memorial Committee. Send application and £5 5s. deposit by April 30 to Mr. W. Tapper, architect, 10 Melina Place, St. John's Wood, London, N.W. 8.

LOWER BEBINGTON.—May 2.—For the erection of sixteen houses in Bebington Road, for the Urban District Council. Deposit £2 2s. The Surveyor, Council Offices, Lower Bebington.

MANSFIELD.—May 11.—For erection of 300 houses of various types, or such proportion of that number as can be completed before July 1922, at Bull Farm site, Chesterfield Road, for the Housing and Town Planning Committee. Deposit £2. Mr. W. Thompson, A.M.I.C.E., borough engineer and surveyor, Market Street, Mansfield.

MARCH (CAMBS.).—May 12.—For erection of 100 houses with roads and sewers. Deposit £1 1s. The Town Clerk, March; or the Contracts Branch, H.M. Office of Works, King Charles Street, London, S.W. 1.

MILNSBRIDGE.—April 26.—For the excavators', masons', and bricklayers', carpenters' and joiners', plumbers' and glaziers', slaters', painters', iron and steel and concreters' work in alterations and additions to Union Mills and Elm Ing Mills. Send names, by April 26, to Mr. J. Ainley, architect and surveyor, 3 Chapel Hill, Huddersfield.



SPECIFY  
**THE MOST EFFICIENT**

**VAUGHAN'S  
PURE BITUMEN  
DAMP-PROOF COURSES**

Made from Highest-Grade Materials.  
Extensively specified for Important  
Contracts, Housing Schemes, etc.

**ROOFING FELTS**

- "REXOID"** SELF-FINISHED BITUMEN ROOFING.
- "DUREX"** SMOOTH, FLEXIBLE FELT FOR ROOFING AND SARKING.
- "DURITE"** SUPERIOR BITUMEN UNDERSLATING, Etc.

For Samples, etc., apply to Manufacturers :  
**H. R. VAUGHAN & CO. Ltd.,**  
(Dept. A) Works : GATESHEAD-ON-TYNE.  
Preston, Lancs, and Bishop Auckland.

**ASPHALTE**

Send your inquiries to :  
**F. J. L. ROBERTSON,**  
22 Oakdale Road,  
Streatham, S.W. 16.  
Telephone: STREATHAM 1044.

Quotations given for Work in Town or Country.  
Also BITUMEN DAMPCOURSES, ROOFING FELTS, Etc., Etc

LOW PRICES. BEST WORK.



**THE BRILLIANT SIGN CO. Ltd.,**  
38 GRAY'S INN ROAD, LONDON.  
18 Mount Street, Manchester. 25 Cookridge Street, Leeds.

RED HAND TRADE MARK



*Anderson's*  
**"ROK"**  
ROOFING

On private dwellings, public buildings, schools, shops and offices throughout the world, "Rok Roofing" is withstanding the severest tests of weather and climate.

For pitched, flat, and circular roofs, where moderate cost and utmost permanence are essential, it solves the builder's Roofing Problem.

Our world-wide experience is at your service.

*Illustrated Catalogue*  
POST FREE ON REQUEST

**D. ANDERSON & SON, Ltd.**  
(Dept.O), LAGAN FELT WORKS, BELFAST.  
Roach Road Works, Old Ford, London.

All grades of highest quality

**WASHED SHARP SAND,  
SHINGLE, BALLAST.**

Immediate delivery by road on site in large or small quantities.

**JOHN BENNETT,** 2 MONTSERRAT ROAD,  
PUTNEY, S.W. 15.

Telephone: PUTNEY 2047.



**MINEHEAD.**—April 29.—For erection of ten cottages on their building site, Cher, for the Minehead Urban District Council. Deposit £2 2s. Mr. A. D. Barron, architect, engineer, and surveyor, The Parade, Minehead.

**NORTHWICH.**—May 4.—For erection of houses under the Housing Acts of both the Parlour and non-parlour types, as follows, for the Northwich Rural District Council: Township of Eddisbury (near Delamere Station), six houses type A, four type B; township of Weaverham (copyhold), four type A, four type B; township of Barton (Townfield Road), ten type A, six type B; township of Leftwich (Laburnam Road), twelve type B; township of Moulton (Whitlow Lane), eight type A; total, twenty-eight type A, twenty-six type B. Mr. J. Birtwistle, housing surveyor, Bank Chambers, Winnington Street, Northwich.

**OLDHAM.**—April 27.—For erection of division walls, &c., in the cotton shed, at Werneth, Oldham, for the Lancashire and Yorkshire Railway Company. The Engineer's Office, Hunt's Bank, Manchester.

**RAMSGATE.**—May 5.—For erection and completion of twenty-six houses on the Dumpton Road site, for the Corporation. Deposit £2 2s. The Borough Engineer, Albion House, Ramsgate; or Mr. W. Everard Healey, Lic.R.I.B.A., M.S.A., 2a Turner Street, Ramsgate.

**READING.**—May 10.—For the erection of a new post office at Reading. Deposit £1 1s. Reading Post Office, or the Contracts Branch, H.M. Office of Works, King Charles Street, London, S.W. 1.

**ST. ERITH.**—April 30.—For erection of a Council School, for the Cornwall Education Committee. Deposit £1 1s. Mr. F. G. Drewitt, architect, Lennards Chambers, Penzance.

**SHIPLEY.**—April 25.—For the erection of fifty-six houses, of six types, at Hirst Wood, for the Urban District Council. Deposit £1. The Architect, Council Offices, Somerset House, Shipley, Yorks.

**STRATFORD-ON-AVON.**—April 30.—For erection of workmen's cottages as follows, for the Stratford-on-Avon Rural District Council, viz.: Easington, six houses; Coppington, two; Fulbroke, two; Hampton Lucy, eight; Hatton Rock, two; Langley, two; Loxley, eight; Snitterfield, eight. Deposit £1 1s. Mr. M. J. Harvey, architect, 50 Arden Street.

**TOTTINGTON.**—April 30.—For the following contracts for erection of houses for the Walshaw housing scheme, as follows, for the Tottington Urban District Council: Contract No. 2—for 28 houses, type A, in blocks of four; 3—for 14 houses, type B, in blocks of two. Deposit £1 1s. The Surveyor to the Council, Town Hall, Tottington, near Bury.

**TRANENT.**—May 4.—For the following works in connection with the erection of thirty-three blocks, comprising in all eighty houses of three and four apartments, for the Town Council (Messrs. Robertson and Swann, A.R.I.B.A., architects, 29 Hanover Street, Edinburgh), viz.: Excavator, mason and brick work, carpenter and joiner work, plumber work, slater and roughcast work, plaster work, glazier work, painter work, roads and footpaths, sewers, fencing. Mr. J. Brothie, F.F.S., surveyor, 29 Hanover Street, Edinburgh.

**TREDEGAR.**—May 3.—For erection of 162 brick-built houses (in pairs), to be completed before August 1, 1922, for the Tredegar Urban District Council. Deposit £4. Mr. A. F. Webb, M.S.A., architect, Tredegar Chambers, Blackwood, Mon.

**TWICKENHAM.**—April 27.—For (1) completion of thirty-six houses and eight tenements in various stages of erection, and (2) the erection of fifty-seven houses and sixteen tenements on sites situate in Prospect Crescent, Kneller Road, Cedar Avenue, Whitton Dean Road, and Colonial Avenue, for the Twickenham Urban District Council. Mr. F. W. Pearce, F.S.I., surveyor, Town Hall, Twickenham.

**WALSHAM-LE-WILLOWS, SUFFOLK.**—April 27.—For erection of eight cottages at Walsham-le-Willows, for the Thedwastre Rural District Council. Deposit £3 3s. Messrs. Hunt & Coates, architects, 51 Abbeygate Street, Bury St. Edmund's, and Stowmarket.

**WESTGATE-ON-SEA.**—April 28.—For the second instalment of their housing scheme, as follows: Westgate-on-Sea (Minster Road site)—alternative tenders for eight or sixteen houses; Birchington—eight houses (one block of four and two blocks of two); Minster—ten houses (two blocks of four and one block of two); Acol—four houses, for the Isle of Thanet Rural District Council. Builders may tender for erection of the whole or any number of the houses. Mr. F. J. Cornford, M.S.A., architect, Town Hall Buildings, Westgate-on-Sea.

**WHITLAND.**—April 30.—For erection of memorial vestry at St. Mary's Church. Plans may be seen at Clare House, North Street, Whitland.

**YORK.**—April 25.—For the construction of 120 houses (in blocks of two and four) on the Tang Hall site, Heworth, York, for the Corporation. Contractors may tender for either single blocks or any number up to the total. Mr. F. W. Spurr, architect, Guildhall, York.

## TENDERS.

### EASTCOTE.

For the erection of fifty-five houses at Field End, Eastcote, Middlesex, for the Ruislip-Northwood Urban District Council. Messrs. A. and J. Soutar, architects, 8 King William Street, Strand, W.C.

Truett & Steel, Ltd.	£71,487	0	0
C. Miskin & Sons, Ltd.	70,306	0	0
W. Fattinson & Sons, Ltd.	69,492	0	0
F. E. Applegate	68,857	0	0
J. W. Ellingham	68,672	0	0
A. Roberts & Co., Ltd.	67,150	0	0
E. J. Logan	67,035	0	0
Arding & Hobbs, Ltd.	66,267	0	0
Clark Bros., Ltd.	65,800	0	0
Fasnidge & Son	64,634	0	0
H. Farrow	62,052	0	0
H. Boot & Son, Ltd.	61,268	0	0
A. Fairhead & Son, Ltd.	60,764	0	0
W. G. Tarrant, Ltd.	58,600	0	0
C. Groom, Sons & Co., Ltd.	58,352	0	0
A. J. Eldridge	56,583	0	0
Ospen & Williams, Ltd.	54,175	0	0
H. NEAL (recommended)	52,635	0	0

### NORTHWOOD.

For the erection of thirty-six houses for the Ruislip-Northwood Urban District Council. Messrs. A. & J. Soutar, architects, 8 King William Street, Strand, W.C.

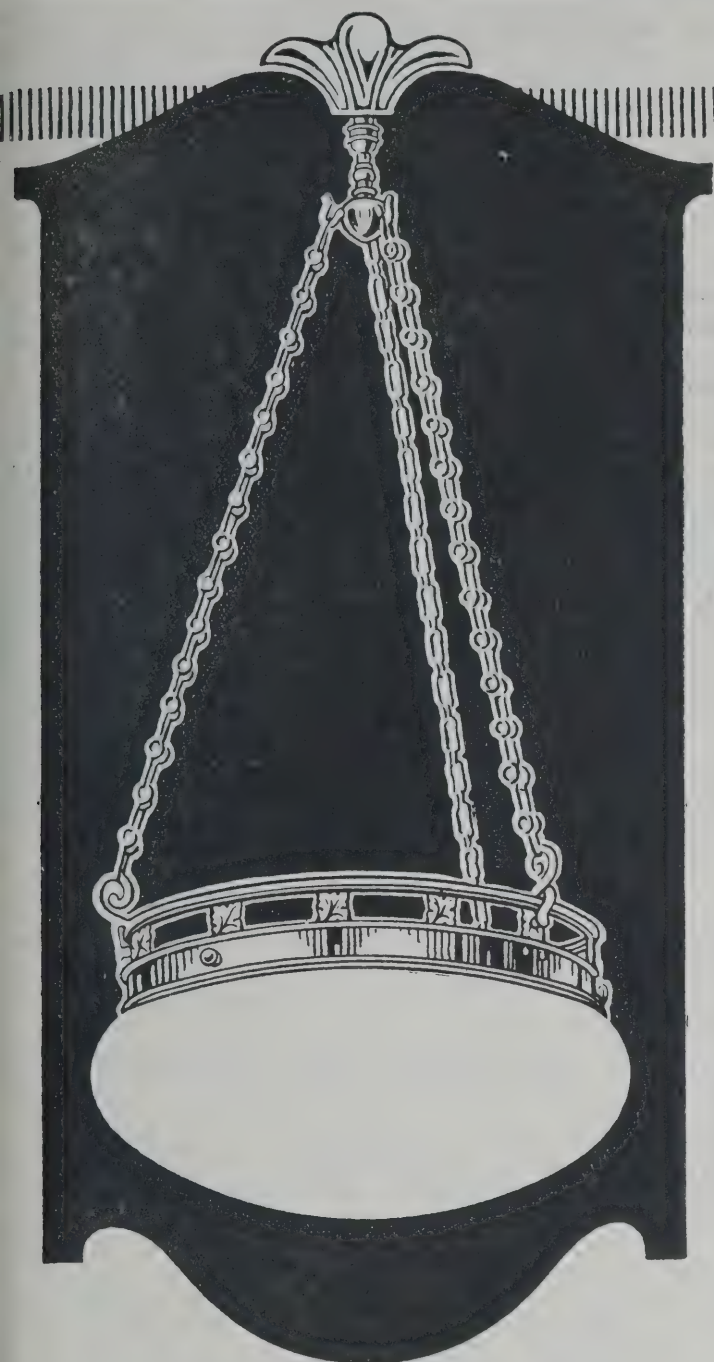
A. J. Eldridge	£49,365	0	0
Patman & Fotheringham, Ltd.	49,271	0	0
Truett & Steel, Ltd.	45,863	0	0
H. Farrow	44,900	0	0
C. Miskin & Sons, Ltd.	44,714	0	0
F. Parvin, Ltd.	44,599	0	0
W. Fattinson & Sons, Ltd.	44,507	0	0
J. W. Ellingham	43,990	0	0
Arding & Hobbs, Ltd.	42,542	0	0
Clark Bros., Ltd.	42,000	0	0
H. Boot & Sons, Ltd.	39,557	0	0
C. Groom, Sons & Co., Ltd.	36,776	0	0
H. NEAL (recommended)	34,092	0	0

### MITCHAM (SURREY).

For the erection of 162 houses at London Road (housing scheme No. 3) for the Mitcham Urban District Council. Mr. R. M. Chart, F.S.I., M.S.A., architect, Croydon and Mitcham.

G. Reader	£180,659	0	0
Dowsett and Jenkins	166,717	0	0
Parker & Sons	166,132	0	0
H. D. Ebbutt	162,260	0	0
C. E. Head	161,114	0	0
S. Dale	159,606	0	0
Pattinson & Sons	159,494	0	0
Lorden & Sons	158,794	0	0
Clout & Tysoe	158,670	0	0
Chappell Bros.	158,272	0	0
Sayers & Son	156,183	0	0
Boot & Son	156,134	0	0
W. Smith & Sons	155,872	0	0
C. H. Gibson, Ltd.	152,984	0	0
King & Thursby	152,904	0	0
E. J. Saunders	152,820	0	0
F. W. Honour	152,043	0	0
Roome & Co., Ltd.	149,778	0	0
A. L. & H. W. Chown	147,030	0	0
Groom, Sons & Co.	144,902	0	0
A. J. Winters	142,218	0	0
Truett & Steel	141,541	0	0
F. & G. Foster	141,233	0	0
Somerville & Co.	140,244	0	0
Walter Jones & Sons	139,394	0	0
J. W. Ellingham	137,353	0	0
E. H. SMITH, Croydon (provisionally accepted)	134,990	0	0





SUGG'S "SAVOY" PENDANT

## Scientific Lighting by Gas.

QUITE apart from their artistic beauty and ornamental value, Sugg's Semi-Indirect Fittings represent the ultimate findings of science in the provision of a worthy successor to bright daylight.

In Sugg's Semi-Indirect Fittings there is no unsightly centre gas-pipe and not even the burners—far less the naked light—are visible from the ground level; the clear WHITE, Incandescent light is perfectly diffused by the handsome bowl and the result is a restful yet ample light entirely free from any tendency to eye-strain.

## Sugg's Fittings for Semi-Indirect Lighting

WRITE FOR CATALOGUE  
of Semi-Indirect Fittings  
fully illustrated in colour, free on request.

Other Catalogues also free :

No. 11. Lamps and Fittings for Interior and Exterior Lighting.  
No. 12. Lamps for Public Lighting. No. 15. Gas Cookers.

William SUGG & CO. Ltd., Ranelagh Works, Westminster, S.W.1.



# THE ARCHITECT

FOUNDED 1869.

Incorporating "The Contract Reporter," 1885.  
 "The Builder's Reporter and Engineering Times."  
 "The Building Trade," 1913.

FRIDAY, APRIL 29, 1921.

*Owing to the increasing demand for back numbers we are compelled to give the following notice:—*

*All numbers for the past twelve months 9d. each, previous to that date 1s. each.*

## TENDERS, &c.

As great disappointment is frequently expressed at the non-appearance of Contracts Open, Tenders, &c., it is particularly requested that information of this description be forwarded to the Office, Imperial Buildings, Ludgate Circus, London, E.C., not later than 2 P.M. on Wednesdays.

## CONTRACTS OPEN.

**BIDEFORD.**—May 4.—For erection of houses under the Borough housing scheme to the number of twenty-six, on the Torrington Road site, East-the-Water, for the Corporation. Deposit £1 1s. Mr. B. W. Oliver, A.R.I.B.A., Bridge Buildings, Bideford.

**BIRMINGHAM.**—May 2.—For erection of houses on the following sites, for the City Council: Schedule of sites.—Farcroft estate, Handsworth (existing frontages), fifty-six houses; Northlands Road, King's Heath, twenty-two; Mossfield Road, King's Heath, twenty-five; Palace Road, Bordesley Green, ten; Uplands Road and Avenue Road, Handsworth, twenty-eight; Holly Lane, Erdington, twenty-six; Shortheath Road, Erdington, sixteen. Send names by 12 noon on May 2 to Mr. F. T. Cox, housing director, Market Buildings, Moat Lane, Birmingham.

**BIRMINGHAM.**—May 10.—For alterations to the Ministry of Pensions Regional Headquarters, 55 Lionel Street. Deposit £1 1s. The District Surveyor, H.M. Office of Works, Birmingham, or the Contracts Branch, H.M. Office of Works, King Charles Street, London, S.W. 1.

**BLACKPOOL.**—For structural alterations, including new balcony, at the Princess Theatre, for the Blackpool Entertainments, Ltd. Mr. Halstead Best, F.I.S.E., &c., architect, 1 South King Street, Blackpool.

**BRADFORD-ON-AVON.**—For eight parlour cottages, in pairs, at Holt, and eight non-parlour cottages at Westwood and Winstey, also in pairs, for the Bradford-on-Avon, Wilts., Rural District Council. Mr. W. W. Snailum, architect, Church Street, Trowbridge. Send in names to Mr. J. Compton, clerk, Westbury House, Bradford-on-Avon, Wilts.

**CARNABY, YORKS.**—May 7.—For erection of fourteen houses and thirteen sets of farm buildings, at Wiltshorpe Estate, Carnaby, near Bridlington, for the East Riding of Yorkshire County Council. The Wiltshorpe Farm, Bridlington, and the County Land Agent, County Hall, Beverley.

**CHESTER.**—May 20.—For alterations to the Head Post Office. Deposit £1 1s. H.M. Office of Works, James Street, Liverpool, or The Contracts Branch, H.M. Office of Works, King Charles Street, S.W. 1.

**COSGROVE.**—May 7.—For erection of two cottages and other works at Cosgrove, for the Northamptonshire County Council. The County Land Agent, County Chambers, 1 The Drapery, Northampton.

**CRAWLEY.**—May 9.—For the erection of the following houses, for the Horsham Rural District Council, viz.:—Eleven pairs of houses in Ifield Road, Crawley. Deposit £1 1s. Mr. W. R. Guilford, surveyor to the Council, Albion Terrace, Horsham.

**DINGWALL.**—May 7.—For the mason, carpenter, slater, plumber, plasterer, painter, glazier and electric lighting works in connection with the block of four dwelling-houses to be erected at Meiklefield, for the Town Council. Messrs. Mackenzie and Macdonald, architects, Dingwall.

**DORCHESTER.**—May 4.—For alterations and repairs to Shirley House, West Walks. Mr. F. T. Maltby, A.M.I.C.E., architect and surveyor, Dorchester.

**EMSWORTH.**—May 7.—For erection of eight A-type houses, in pairs, for the Warblington Urban District Council. Deposit £2 2s. Mr. F. Heath, surveyor, Council Offices, Emsworth.

**FAKENHAM, NORFOLK.**—May 7.—For erection of business premises, Norwich Road, for the Fakenham Co-operative Society, Ltd. Messrs. A. F. Scott & Sons, A.A.R.I.B.A., architects, 24 Castle Meadow, Norwich.

**FORFAR.**—May 6.—For the excavator, brick and concrete (or alternatively stone), carpenter and joiner, slater and rough casting, plumber, plaster, painter, and glazier works of six blocks containing twelve dwelling-houses, four rooms, type B2, to be erected at Lilybank, for the Town Council. Contractors may tender for the whole or any one or more blocks. Mr. T. R. Soutar, architect, Mansfield, Forfar.

**FRIZINGTON.**—May 6.—For erection of thirty houses, or any smaller number not being less than ten, at Howgate, Frizington, for the Arlecdon and Frizington Urban District Council. The Surveyor, Council Office, Frizington, Cumberland.

**GLASGOW.**—May 12.—For the following works required in connection with the construction of a public convenience at Eldon Street, Kelvingrove Park, for the Corporation of Glasgow, viz.:—(1) mason, brick, joiner, &c., works; and (2) sanitary fittings. The Office of Public Works, City Chambers, 64 Cochrane Street, Glasgow.

**HUNTINGTON, STAFFS.**—May 4.—For erection of a further 100 class A houses at Huntington, Staffordshire, for the Cannock Rural District Council. Mr. H. M. Whitehead, director of housing, Penkridge, near Stafford.

**IPSWICH.**—May 11.—For erection of a sorting office at Ipswich. Deposit £1 1s. The Head Post Office, Ipswich, or the Contracts Branch, H.M. Office of Works, King Charles Street, London, S.W. 1.

**KING'S BROMLEY.**—May 14.—For erection of infants' new class and cloak-rooms, boiler house, and hot-water apparatus at the Parochial Schools. Mr. W. E. Rogers, architect, Rugeley.

**KINGSTON-UPON-THAMES.**—May 4.—For erection on their housing site of twelve houses, for the Corporation. Deposit £1 1s. The Borough Surveyor, Town Hall, Kingston-upon-Thames.

**LEAKE, NOTTS.**—May 16.—For erection of eight workmen's dwellings on the Kirk Leys site, East Leake, for the Leake Rural District Council. Deposit £2 2s. Mr. A. W. Jarratt, clerk, Union Offices, Loughborough.

**LITTLE HULTON.**—May 9.—For erection of twenty-two houses, comprising twelve class "A" and ten class "B" on part of the Engine Fold scheme, for the Urban District Council. Deposit £2 2s. The Surveyor, Council Offices, Little Hulton, Lancs.

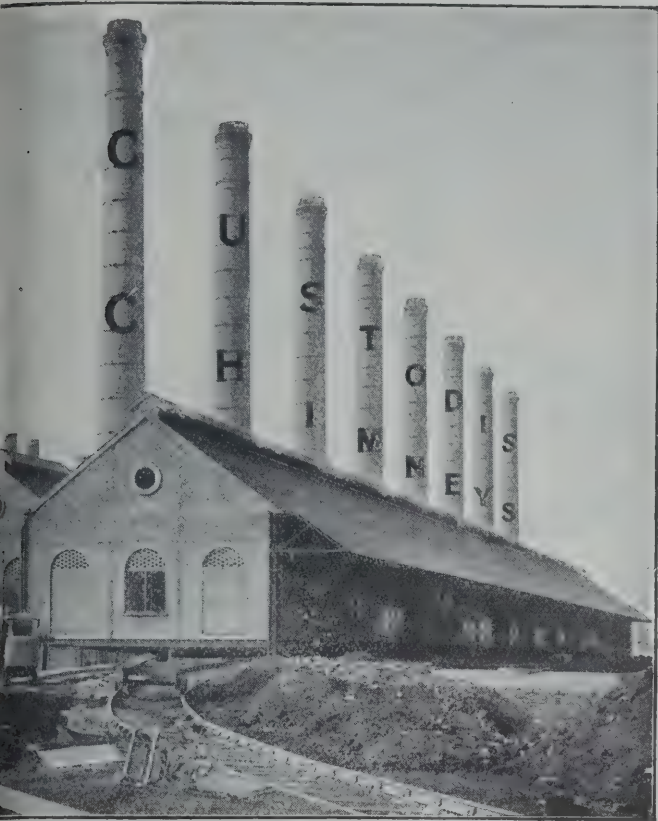
**LLANFYRNACH.**—May 5.—For erection of four workmen's cottages in pairs, under the Housing Act, 1919, on the following sites, for the Llanfyrnach Rural District Council, viz.:—Two houses on Hermon site, two houses on Mount Pleasant site. Mr. S. Jones, surveyor, Maesffynnon, Llanfyrnach, S.O.

**LONDON.**—May 10.—The Wandsworth Borough Council invite separate tenders for erection and completion of (a) seventy-one houses on the Watney estate, Southfield, in groups comprising respectively eight, ten, twenty-two, and thirty-one houses; and (b) thirty-eight houses on the Furzedown estate, Tooting, in groups comprising respectively fourteen and twenty-four houses. Contractors may tender for any one or more groups, subject to their undertaking as to completion within the time and as provided in the form of tender. Deposit £2 2s. for each contract. Watney estate—Mr. G. L. Elkington, A.R.I.B.A., Norfolk House, 7 Laurence Pountney Hill, Cannon Street, E.C. 4; Furzedown estate—Mr. H. B. Elkington, A.R.I.B.A., Norfolk House, 7 Laurence Pountney Hill, Cannon Street, E.C. 4.

**MAESTEG.**—May 10.—For erection complete of a further 100 houses on their Park site, Maesteg, allocated as follows, for the Maesteg Urban District Council: Contract No. 3—thirty-four B type houses; No. 4—twenty B type houses; No. 5—forty-six B type houses. Deposit £2 2s. for each contract. Mr. S. J. Harpur, M.S.A., architect, Council Offices, Talbot Street, Maesteg.

**MANCHESTER.**—May 5.—For the erection of a tennis pavilion and bowl house at Cringle Fields, Burnage, for the Parks Committee. Deposit £1 1s. The City Architect, Town Hall, Manchester.





EIGHT CHIMNEYS RECENTLY BUILT BY CUSTODIS, LTD.

inquiries invited.

CUSTODIS, LTD.,  
119 Victoria Street,  
WESTMINSTER, S.W.1.

TELEGRAMS—Custodomus Sowest.  
PHONE—779 Victoria.

**HEATING** AND HOT  
WATER  
SUPPLIES.  
FOR EVERY DESCRIPTION OF BUILD-  
ING, OFFICES, FACTORIES, &c. &c.  
**CHAS. P. KINNELL & CO., LTD.,**  
65, Southwark Street, London, S.E. 1  
**VENTILATION**  
EXPERT ADVICE & ESTIMATES FREE

LOW PRICES. BEST WORK.

THE BRILLIANT SIGN CO. Ltd.,  
38 GRAY'S INN ROAD, LONDON.  
18 Mount Street, Manchester. 25 Cookridge Street, Leeds.

**VENUS**

17 degrees  
Blacklead  
6B (Softest)  
to  
9H (Hardest)

For  
Architects  
& Builders  
Of all Stationers &  
Drawing Office Suppliers

**PENCILS**

"VENUS" Lower Clapton Road E. 5.

All grades of highest quality

**WASHED SHARP SAND,  
SHINGLE, BALLAST.**

Immediate delivery by road on site in large or small quantities.

**JOHN BENNETT,** 2 MONTERRAT ROAD,  
PUTNEY, S.W. 15.

Telephone: PUTNEY 2047.



**MANSFIELD.**—May 11.—For erection of 300 houses of various types, or such proportion of that number as can be completed before July 1922, at Bull Farm site, Chesterfield Road, for the Housing and Town Planning Committee. Deposit £2. Mr. W. Thompson, A.M.I.C.E., borough engineer and surveyor, Market Street, Mansfield.

**MARCH (CAMBS.).**—May 12.—For erection of 100 houses with roads and sewers. Deposit £1 1s. The Town Clerk, March; or the Contracts Branch, H.M. Office of Works, King Charles Street, London, S.W. 1.

**MENSTON, YORKS.**—May 13.—For all or any of the works required in the erection (under a housing scheme) of a small number of dwellings at Menston, for the Wharfedale Rural District Council. Mr. O. Holmes, architect, Boroughgate, Otley.

**NORTHWICH.**—May 4.—For erection of houses under the Housing Acts of both the Parlour and non-parlour types, as follows, for the Northwich Rural District Council: Township of Eddisbury (near Delamere Station), six houses type A, four type B; township of Weaverham (copyhold), four type A, four type B; township of Barton (Townfield Road), ten type A, six type B; township of Leftwich (Laburnam Road), twelve type B; township of Moulton (Whitlow Lane), eight type A; total, twenty-eight type A, twenty-six type B. Mr. J. Birtwistle, housing surveyor, Bank Chambers, Winnington Street, Northwich.

**NOTTINGHAM.**—For building works required in connection with the Nottingham General Hospital:—(a) for super-structure of the nurses' home; (b) for extension of the boiler-house. Messrs. Evans, Clark & Woollatt, architects, Eldon Chambers, Wheeler Gate, Nottingham.

**NOTTINGHAM.**—May 11.—For erection of (a) New Portland Council schools, Forest Fields; (b) Council school, the Wells Road, for the Education Committee. Deposit £1 1s. The City Architect's Office, Guildhall, Nottingham.

**OVERSTRAND.**—May 7.—For erection of four cottages at Overstrand, Norfolk, for the Erpingham Rural District Council. Messrs. A. F. Scott & Sons, A.A.R.I.B.A., architects and surveyors, 23 Castle Meadow, Norwich.

**READING.**—May 10.—For the erection of a new post office at Reading. Deposit £1 1s. Reading Post Office, or the Contracts Branch, H.M. Office of Works, King Charles Street, London, S.W. 1.

**REDDITCH.**—May 3.—For erection of the whole or part of thirty-two non-parlour houses, in blocks of four, and forty semi-detached parlour houses, for the Redditch Urban District Council. Deposit £1 1s. Lieut.-Colonel A. J. Dickinson, T.D.R.E., surveyor, Council office, Redditch.

**SKIPTON.**—May 11.—For the various works required in erection of eight parlour houses and ten scullery houses in land off Carleton Road, for the Urban District Council. Deposit £1 1s. Mr. Aldridge, surveyor, Town Hall, Skipton.

**SOUTH LOPHAM, NORFOLK.**—May 6.—For erection of six houses in pairs, to be built of clay lump, in the Parish of South Lopham, for the Thetford Rural District Council. Mr. G. J. Skipper, F.R.I.B.A., 7 London Street, Norwich.

**THURSTON.**—For building a farmhouse at Grove Farm, Thurston, Suffolk. Mr. J. H. Bonner, Guildhall Street, Bury St. Edmunds.

**TRANENT.**—May 4.—For the following works in connection with the erection of thirty-three blocks, comprising in all eighty houses of three and four apartments, for the Town Council (Messrs. Robertson and Swann, A.R.I.B.A., architects, 29 Hanover Street, Edinburgh), viz.: Excavator, mason and brick work, carpenter and joiner work, plumber work, slater and roughcast work, plaster work, glazier work, painter work, roads and footpaths, sewers, fencing. Mr. J. Brochie, F.F.S., surveyor, 29 Hanover Street, Edinburgh.

**TREDEGAR.**—May 3.—For erection of 162 brick-built houses (in pairs), to be completed before August 1, 1922, for the Tredegar Urban District Council. Deposit £4. Mr. A. F. Webb, M.S.A., architect, Tredegar Chambers, Blackwood, Mon.

**WEYMOUTH.**—May 2.—For the first instalment of their housing scheme, consisting of eighty-six houses of various types, as follows, for the Estates and Housing Committee:—ten blocks semi-detached A type, five blocks semi-detached A2 type, nine blocks semi-detached B type, and nineteen blocks semi-detached B1 type. Deposit £2 2s. Mr. G. H. Whitaker, A.M.I.C.E., borough surveyor, Municipal Offices, Weymouth.

**WOLSINGHAM.**—May 7.—For erection of three pairs of semi-detached cottages at Holywood Hall Sanatorium, Wolsingham, for the Durham County Council. Mr. A. E.

Brookes, M.I.C.E., county surveyor and architect, Shire Hall, Durham.

**WOOD GREEN.**—May 7.—For erection of ninety-two houses of various approved types on the Council's White Hart Lane estate, for the Wood Green Urban District Council. Tenders may be submitted in respect of the whole or any proportion of such houses. Deposit £3 3s. The Engineer and Surveyor to the Council, Town Hall, Wood Green.

## TENDERS.

### HUNGERFORD.

For the erection of ten houses type A (non-parlour) at Eastbury, and ten ditto at East Garston, for the Hungerford Rural District Council.

Messrs. Peattie & Co., Oxford: East Garston £7,740, Eastbury £7,896; Fitt, Reading: £8,908 and £9,125; Hinkins & Frewin, Oxford: £8,530 and £8,720; Hoskings Bros., Newbury: £8,010 and £8,010; The Cirencester and Cotswold Building Co. (*provisionally accepted*), Gloucester: £7,298 and £7,423; W. Adams & Co., Lambourn: £7,810 and £8,081; Bartlett Bros., Witney, £8,753 and £8,909; J. T. Gibbs, Hungerford: £8,374 and £8,613; Yeckhonick, London: £8,897 and £9,164; S. Hutchins & Son, Oxford: £9,437 and no tender.

### LONDON.

For improvement of the River Graveney, for the London County Council.

Macdonald, Gibbs & Co. (Engineers), Ltd.	£415,118 18 0
John Cochrane & Sons	295,871 9 0
Owen, Gibbon & Morris	263,062 17 0
Metropolitan Tunnel and Public Works Works Co., Ltd.	255,810 0 0
Chas. Brand & Son	243,364 11 5
Walter Scott & Middleton, Ltd.	230,911 0 6
Perry & Co. (Bow), Ltd.	226,930 0 0
P. & W. Anderson, Ltd.	215,280 0 0
John Price & Son	212,380 7 0
The Centropolis Public Works Co., Ltd.	192,675 2 9

For providing and fixing heating apparatus at the Allfarthing Lane School, Wandsworth, for the London County Council.

W. Freer	£3,253 0 0
The Brightside Foundry and Engineering Co., Ltd.	2,747 0 0
Architect's Estimate	2,657 0 0
Comyn Ching & Co.	2,597 0 0
W. G. Cannon & Sons, Ltd.	2,537 0 0
J. and F. May, 33 Whetstone Park, Lincoln's Inn Fields ( <i>accepted</i> )	2,449 0 0

MESSRS. JOHN LAING & SONS, contractors, who are erecting over 1,000 houses for Messrs. Baldwins, Ltd., at Port Talbot, Bryn, Tondy, and Kenfig, have established a record by having fully completed two houses at Bryn in the short space of fifteen days. The houses are for the officials of the Bryn Colliery, and consist of four bedrooms and three rooms on the ground floor. To celebrate this achievement the firm last week entertained the workmen engaged on the houses to a supper.

COMPLAINT was made at the last meeting of Consett Urban District Council that the instalments paid by the Ministry of Health in regard to the loan promised for housing purposes were so small that it only enabled building operations to be carried on for a week or two, and the Council resolved to inform the Ministry point blank that unless it was more generous in its allowances, so as to keep the workmen fully employed, the housing scheme would be abandoned, after the existing dwellings in progress had been completed.

THE West Bromwich Town Council, on the recommendation of the Housing Committee, have approved of an amended plan for the lay-out of the Charlemont estate and of an application being made to the Ministry of Health for sanction to borrow £500,000 for the work. The chairman of the Committee expressed the opinion that the need for houses in the borough was greater than ever, and it was necessary, if they were to have the advantage of the Government's financial proposals, that they should proceed with the work at Charlemont as soon as possible.



## USE FERROCRETE

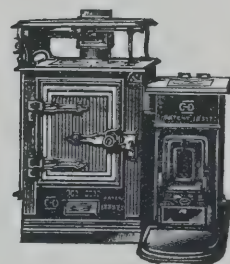
A finely ground Portland Cement, specially manufactured for reinforced concrete work. Absolutely reliable and uniform in quality.

**Quick Hardening.      Slow Setting.**

It saves time, and time is money.  
Packed only in sacks of 100 lb. weight.

*The*  
**CEMENT MARKETING  
COMPANY, LIMITED,**  
8 Lloyd's Avenue,  
London, E.C.3.

## for Hot Water and Cooking



A plentiful supply of really hot water cuts housework in half, wash-day loses its dread, and all household cleaning is simplified. The primary function of the "Eco" is hot water supply.

*The*  
**ECO**  
*Supplies Hot Water      Heats the oven*  
**Combination**

But the "Eco" does more—the "waste" from the coke or anthracite fired boiler keeps the cooker hot. A few minutes consumption of gas or electricity is sufficient for a whole day's cooking. A *real* labour saver and remarkably economical. Consumes less than 1 lb. of anthracite per hour.

*Prices and full particulars  
are given in our free list.*

**R. JENKINS & CO., Ltd.,**  
ROTHERHAM.



# THE ARCHITECT

FOUNDED 1869.

Incorporating "The Contract Reporter," 1885.  
 "The Builder's Reporter and Engineering Times."  
 "The Building Trade," 1913.

FRIDAY, MAY 6, 1921.

Owing to the increasing demand for back numbers we are compelled to give the following notice:—  
 All numbers for the past twelve months 9d. each, previous to that date 1s. each.

## TENDERS, &c.

As great disappointment is frequently expressed at the non-appearance of Contracts Open, Tenders, &c., it is particularly requested that information of this description be forwarded to the Office, Imperial Buildings, Ludgate Circus, London, E.C., not later than 2 P.M. on Wednesdays.

## CONTRACTS OPEN.

ABINGDON.—May 23.—For erection of fifty houses under the housing scheme in the borough of Abingdon. Deposit £2 2s. Messrs. J. G. T. West & Son, M.M.S.A., architects, The Knowl, Abingdon.

ALTRINCHAM.—May 18.—For erection of forty-four dwelling houses on their estate at Oldfield Brow, for the Urban District Council. There are six types of dwelling houses to be erected, and contractors may tender for the whole or any number of the houses included in this instalment. Deposit £2 2s. Mr. H. E. Brown, surveyor, Town Hall, Altrincham.

BARNSTAPLE.—May 13.—For erection of thirty-two houses, in the parishes of Bittadon (2), Branton (10), Kentisbury (4), Marwood (4), Mortehoe (4), Swimbridge (2), Tawstock (2), and Westdown (4), for the Barnstaple Rural District Council. Contractors may tender for the whole or for any part not less than one block of two or four houses. Deposit £2 2s. Mr. J. C. Southcombe, architect, Cross Street, Barnstaple.

BIRMINGHAM.—May 10.—For alterations to the Ministry of Pensions Regional Headquarters, 55 Lionel Street. Deposit £1 1s. The District Surveyor, H.M. Office of Works, Birmingham, or the Contracts Branch, H.M. Office of Works, King Charles Street, London, S.W. 1.

BRAMHALL, NEAR STOCKPORT.—May 24.—For erection of twelve houses, in pairs, at Lumb Lane, Bramhall, for the Hazel Grove and Bramhall Urban District Council. Deposit £1 1s. Messrs. Adshead & Topham, architects, 23 King Street, Manchester.

CAMPSALL.—May 20.—For the various works required in erection of house at Poplar Farm, Campsall, near Doncaster. Messrs. Lunn & Kaye, architects and surveyors, Milnsbridge, Huddersfield.

CHAPEL-EN-LE-FRITH.—May 14.—For erection of boundary walls on the housing sites at Hope, Wormhill, Bugsworth, Whitehough, Batham Gate, Bamford, and Dove Holes, for the Chapel-en-le-Frith Rural District Council. Full particulars may be obtained from the architects, Mr. C. Flint, 5 The Quadrant, Buxton; and Mr. W. Swann, St. Peter's Chambers, Stockport. Tenders, marked "Fencing," should reach Mr. J. B. Boycott, clerk, High Street, Chapel-en-le-Frith, by May 14.

CHESTER.—May 20.—For alterations to the Head Post Office. Deposit £1 1s. H.M. Office of Works, James Street, Liverpool, or The Contracts Branch, H.M. Office of Works, King Charles Street, S.W. 1.

CHESTERFIELD.—May 9.—For the erection of forty houses, in three contracts, on the St. Augustine's Road site, No. 2, for the Corporation, viz.:—No. 1, twenty-three houses in eight blocks; No. 2, ten houses in five blocks; No. 3, seven houses in three blocks. Contractors may tender for the whole or any one contract. Send applications by May 9 to Mr. W. M. Ashmore, architect, Highfield Road, Chesterfield.

CHESTERFIELD.—May 23.—For erection of thirty-one houses on the St. Augustine's Road site, No. 2, for the Corporation. Mr. B. Deeping, architect, Gluman Gate, Chesterfield.

CLAYTON WEST.—May 20.—The West Riding Education Committee invite whole tenders for the following works:—Adaptation of infants' department as a special subjects centre, at Clayton West Kaye's Council school. The West Riding Education Architect, County Hall, Wakefield.

COWDENBEATH.—For concrete block walling, joiner, plumber, plaster and roof tiling work in church at Cowdenbeath. Mr. R. Fairlie, architect, 14 Randolph Place, Edinburgh.

CRAYFORD (KENT).—May 22.—For the erection of 154 houses, to be let in three contracts, for the Crayford Urban District Council:—Contract No. 1, forty-eight houses; Contract No. 2, fifty houses; Contract No. 3, fifty-six houses. Deposit £3 3s. for each contract. Mr. W. F. Bickford, engineer and surveyor, housing architect, Public Offices, Crayford.

DRONFIELD.—May 18.—For erection of ten houses on the housing site in Dronfield, for the Urban District Council. Deposit £1 1s. Mr. T. H. Atkinson, architect, Council Offices, Dronfield.

DURHAM.—May 14.—For erection of fifty-two houses at Bearpark, for the Durham Rural District Council. Deposit £2 2s. Mr. G. Ord, architect and surveyor, 16 The Avenue, Durham.

ECCLES.—May 9.—For the various works in the conversion of the Patricroft Day Nursery, Green Lane, Patricroft, into a maternity and child-welfare centre. The Borough Surveyor, Town Hall, Eccles.

GLASGOW.—May 12.—For the following works required in connection with the construction of a public convenience at Eldon Street, Kelvingrove Park, for the Corporation of Glasgow, viz.:—(1) mason, brick, joiner, &c., works; and (2) sanitary fittings. The Office of Public Works, City Chambers, 64 Cochrane Street, Glasgow.

GODSTONE.—May 24.—For erection of six working-class dwellings at Dormans Land, six at Lughurst Road, Woldingham; six at Park Farm, Limpsfield; and eight at Saxby Lane, Lingfield, for the Godstone Rural District Council. Builders wishing to tender for a smaller number of houses may do so. Deposit £2 2s. Dormans Land and Lingfield sites Messrs. Hayward & Maynard, architects, 14 John Street, Adelphi, W.C. 2; Limpsfield and Woldingham sites Mr. Granville Streatfeild, architect, 24 Old Buildings, Lincoln's Inn, W.C. 2.

HALIFAX.—For the builders' work required in the erection of a grand stand for the Halifax Football Club. Messrs. Hinchliffe & Co., architects, Tower Chambers, Halifax.

LANARK.—May 11.—For the excavator, brick, &c., carpenter, joiner and ironmongery, glazier, slater and rough-cast, plumber and gasfitting, plaster and concrete, and painting works of the dwelling houses proposed to be erected under the following schemes, viz.:—Millerton scheme, seventy-six houses, twenty-four blocks; Stepps scheme, thirty houses, ten blocks, for the District Committee of the Lower Ward of the County of Lanark. Deposit £1 1s. each schedule. Messrs. Lennox & M'Math, architects, 103 Bath Street, Glasgow.

LEAKE, NOTTS.—May 16.—For erection of eight workmen's dwellings on the Kirk Leys site, East Leake, for the Leake Rural District Council. Deposit £2 2s. Mr. A. W. Jarratt, clerk, Union Offices, Loughborough.

LEEDS.—May 20.—Tenders are invited by the Improvements Committee for all combined trades in connection with the erection of 1,000 houses on the Middleton housing estate. The contract documents are so arranged that contractors may tender for any number of houses from forty-eight upwards in either brick or concrete construction. Deposit £1 1s. Mr. W. T. Lancashire, city engineer, Municipal Buildings, Leeds. Tenders, properly endorsed, must be received at the Town Clerk's Office, Great George Street, Leeds, by 10 A.M. on May 20.

LETHWORTH.—May 21.—For erection of buildings, &c., for house refuse pulveriser, including high and low level concrete floors and approach roads and close-boarded fencing of site, &c., for the Urban District Council. Deposit £2 2s. Mr. G. T. Hill, surveyor, Council Offices, Broadway Chambers, Lethworth, Herts.

LONDON.—May 25.—For the extension of the Post Office Savings Bank, West Kensington, London, for the Commissioners of His Majesty's Works, &c. Deposit £1 1s. The Contracts Branch, H.M. Office of Works, King Charles Street, London, S.W. 1.



SPECIFY

THE MOST EFFICIENT

**VAUGHAN'S  
PURE BITUMEN  
DAMP-PROOF COURSES**

Made from Highest-Grade Materials.  
Extensively specified for Important  
Contracts, Housing Schemes, etc.

**ROOFING FELTS**

- "REXOID"** SELF-FINISHED BITUMEN ROOFING.  
**"DUREX"** SMOOTH, FLEXIBLE FELT FOR ROOFING AND SARKING.  
**"DURITE"** SUPERIOR BITUMEN UNDERSLATING, Etc.

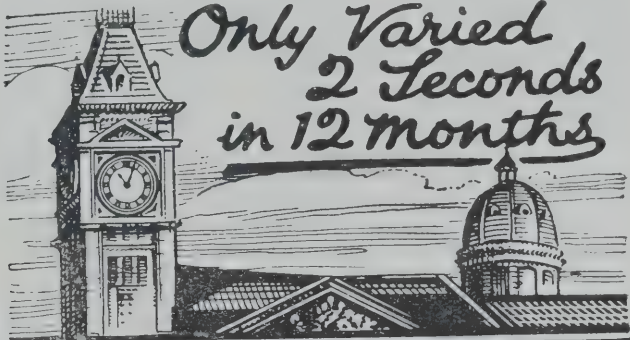
For Samples, etc., apply to Manufacturers:  
**H. R. VAUGHAN & CO. Ltd.,**  
(Dept. A) Works: GATESHEAD-ON-TYNE.  
Preston, Lancs, and Bishop Auckland.

LOW PRICES.

BEST WORK.



**THE BRILLIANT SIGN CO. Ltd.,**  
38 GRAY'S INN ROAD, LONDON.  
18 Mount Street, Manchester. 25 Cookridge Street, Leeds.



**T**HIS wonderful record of the Birmingham Council House Tower Clock was taken in the clock's 20th year of running. It speaks volumes for the excellence of workmanship and accuracy of design which have gained for us a reputation as the World's highest-grade horological designers.

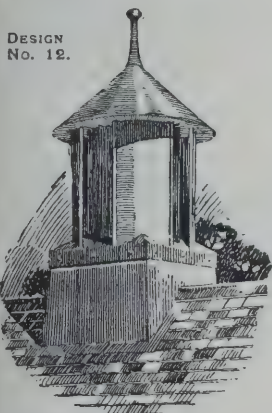
*Applications invited for advice and estimates. An interesting booklet will be mailed on request.*

**Gillett & Johnston,**  
Tower Clock Makers and Bell-founders,  
Croydon.

TELEGRAMS: "SUPPLIES, GLASGOW."

TELEPHONE: 5628 CENTRAL.

DESIGN  
No. 12.



MODERATE PRICES.

VENTILATORS (all classes) KEPT IN STOCK.

**MACKAY'S  
DIRECT-ACTING  
VENTILATORS**

AS SUPPLIED TO  
GOVERNMENT ARMY  
CAMPS • MUNITION WORKS •  
SHELL FACTORIES • AERIAL  
SHEDS • HOSPITALS • ARMY  
& WORKS CANTEENS • ETC.

SOLE MAKERS:  
COUSLAND & MACKAY  
VENTILATING ENGINEERS  
118, 120 KENT RD., GLASGOW

All grades of highest quality

**WASHED SHARP SAND,  
SHINGLE, BALLAST.**

Immediate delivery by road on site in large or small quantities.

**JOHN BENNETT,**

**2 MONTSERRAT ROAD,  
PUTNEY, S.W. 15.**

Telephone: PUTNEY 2047.



LONDON.—May 10.—The Wandsworth Borough Council invite separate tenders for erection and completion of (a) seventy-one houses on the Watney estate, Southfield, in groups comprising respectively eight, ten, twenty-two, and thirty-one houses; and (b) thirty-eight houses on the Furzedown estate, Tooting, in groups comprising respectively fourteen and twenty-four houses. Contractors may tender for any one or more groups, subject to their undertaking as to completion within the time and as provided in the form of tender. Deposit £2 2s. for each contract. Watney estate—Mr. G. L. Elkington, A.R.I.B.A., Norfolk House, 7 Laurence Pountney Hill, Cannon Street, E.C. 4; Furzedown estate—Mr. H. B. Elkington, A.R.I.B.A., Norfolk House, 7 Laurence Pountney Hill, Cannon Street, E.C. 4.

MAESTEG.—May 10.—For erection complete of a further 100 houses on their Park site, Maesteg, allocated as follows, for the Maesteg Urban District Council: Contract No. 3—thirty-four B type houses; No. 4—twenty B type houses; No. 5—forty-six B type houses. Deposit £2 2s. for each contract. Mr. S. J. Harpur, M.S.A., architect, Council Offices, Talbot Street, Maesteg.

MANSFIELD.—May 11.—For erection of 300 houses of various types, or such proportion of that number as can be completed before July 1922, at Bull Farm site, Chesterfield Road, for the Housing and Town Planning Committee. Deposit £2. Mr. W. Thompson, A.M.I.C.E., borough engineer and surveyor, Market Street, Mansfield.

MARCH (CAMBS.).—May 12.—For erection of 100 houses with roads and sewers. Deposit £1 1s. The Town Clerk, March; or the Contracts Branch, H.M. Office of Works, King Charles Street, London, S.W. 1.

MENSTON, YORKS.—May 18.—For all or any of the works required in the erection (under a housing scheme) of a small number of dwellings at Menston, for the Wharfedale Rural District Council. Mr. O. Holmes, architect, Boroughgate, Otley.

MILNSBRIDGE.—For the various works required in the erection of new clubrooms at Milnsbridge, for the Milnsbridge Liberal Club. Messrs. Lunn & Kaye, architects and surveyors, Milnsbridge, Huddersfield.

MORLEY.—May 14.—For the whole of the works required in alterations to the fire station, for the Corporation. Mr. F. Turner, B.Sc., A.M.I.C.E., borough engineer, Town Hall, Morley.

NEW MILLS.—May 17.—For erection of two pairs of parlour-type houses on the High Hill Road site, for the New Mills Urban District Council. Deposit £1 1s. Mr. W. Swann, M.S.A., architect, St. Peter's Chambers, Stockport.

NORTHWICH.—May 11.—For the erection of houses under the Housing Acts of both the parlour and non-parlour types, as follows, for the Northwich Rural District Council:—Township of Eddisbury (near Delamere Station), six houses type A, four type B; township of Weaverham (copyhold), four type A, four type B; township of Barnton (Townfield Road), ten type A, six type B; township of Leftwich (Laburnum Road), twelve type B; township of Moulton (Whitlow Lane), eight type A; total: twenty-eight type A, twenty-six type B. Mr. J. Birtwistle, housing surveyor, Bank Chambers, Winnington Street, Northwich.

PLASNEWYDD.—May 9.—For new cottages, buildings, adaptation of existing house and alterations to existing buildings at Plasnewydd, near Aberdaron, for the County of Carnarvon Small Holdings and Allotments Committee. Send applications by May 9 to Mr. W. W. Jones, architect, Small Holdings Committee, County Offices, Carnarvon.

RICHMOND (YORKS.).—For the work in connection with the Richmond War Memorial. For further particulars apply to the offices of Mr. P. C. Wenham, 15 Newbiggin, Richmond, Yorks, where plans and specifications can be inspected.

RODBOROUGH.—May 10.—For erection on the Calway concrete system of twenty-two houses in Dudbridge Lane, Rodborough, for the Stroud Rural District Council. Send application and £2 2s. deposit by May 10 to Messrs. Falconer, Baker & Campbell, architects, Amberley.

ROTHWELL (YORKS.).—May 21.—For erection of houses on the following sites:—Rothwell Haigh site, up to ninety-six houses; Lofthouse site, up to forty-eight houses; Carlton site, up to forty-eight houses; and Thorpe site, up to forty-eight houses, for the Rothwell Urban District Council. The Council will consider tenders for one block of four houses, or as many blocks as the contractors may be in a position to undertake to complete before July 1922. Messrs. Jones & Stocks, architects, 56 Prudential Buildings, Park Row, Leeds.

RUSKINGTON.—May 14.—For erection of eight houses, in one block of four and two pairs, upon the land south of Rectory Road, for the Urban District Council. Deposit £2. The Council are prepared to consider tenders for two, four, or eight houses. Mr. F. Hossack, architect and surveyor, Ruskington, Lincs.

SALCOMBE.—June 11.—For erection of twenty houses on the Raleigh Road and Camperdown Road site, for the Salcombe Urban District Council. Send applications and £2 2s. deposit by May 21 to Mr. C. E. Turner, clerk, Salcombe.

SCARBOROUGH.—May 10.—For erection of a Wesleyan Central Hall, Queen's Street, for the trustees. Send application and £3 3s. deposit by May 10 to Mr. George E. Withers, F.R.I.B.A., architect, 50 Cannon Street, London, E.C. 4.

SKIPTON.—May 11.—For the various works required in erection of eight parlour houses and ten scullery houses in land off Carleton Road, for the Urban District Council. Deposit £1 1s. Mr. Aldridge, surveyor, Town Hall, Skipton.

SOUTHAMPTON.—May 26.—For erection of 210 houses at Southampton. Tenders will be considered for the construction of roads and sewers only. Drawings, specification, and a copy of the Conditions and Form of Contract may be seen on application to the Borough Surveyor at Southampton. Bills of quantities and forms of tender may be obtained on payment of £1 1s. deposit from the Contracts Branch, H.M. Office of Works, King Charles Street, London, S.W. 1.

WHITLEY BAY.—May 19.—The Commissioners of His Majesty's Works, &c., invite tenders from federated builders only, before 11 A.M. on May 19, for the erection of a post office at Whitley Bay. Deposit £1 1s. The District Surveyor, H.M. Office of Works, 63 Westgate Road, Newcastle-on-Tyne; or the Contracts Branch, H.M. Office of Works, King Charles Street, London, S.W. 1.

## TENDERS.

### CHELMSFORD.

For the supply and laying of water mains on the Boarded Barns housing site, for the Town Council:—F. J. French, £5,116 (English) and £4,516 ("Mannesman" steel weldless); W. & C. French, £3,873 12s. 6d. (English), £3,223 12s. 6d. (French), £3,373 12s. 6d. ("Mannesman"); J. Walling, £3,750 9s. 4d. (English); H. Middleton, £3,514 0s. 4d. (English); G. Percy Trentham, Ltd., Cheap-side, E.C. (accepted), £3,980 (English), £3,124 10s. (French).

### MAIDSTONE.

For the erection of eight houses on the Howland Road site, Marden, for the Rural Council:—Norman Smith & Son, £942 per house; A. George, £938 15s.; R. Hodge, £899 4s. 6 $\frac{1}{2}$ d.; F. Stanley & Sons, Marden (accepted), £828 12s. 11 $\frac{1}{2}$ d.

### MILTON REGIS.

For the erection of eight houses, for the Rural District Council.

Fuller & Sons	£7,440	0	0
Kemp Bros.	7,106	0	0
H. J. Tidy & Sons	6,940	0	0
W. N. Hughes	6,891	0	0
Bowes Bros.	6,677	0	0
Guild of Builders	*5,420	0	0

\* Plus £40 per house and 6 per cent. on condition that they obtained the contract for 130 houses at Queenborough.

### STAMFORD.

For the erection of sixty-six houses (in pairs and fours) south of New Cross Road, for the Town Council. Mr. F. R. Ryman, borough engineer, Stamford.

Flötter & Son	£71,147	7	8
Pattinson & Sons, Ltd.	69,460	0	0
Clarke & Belton	69,229	10	0
Thornhill Bros.	68,842	0	0
E. Ireson	64,406	0	0
Hinson & Co.	63,292	0	0
E. J. W. Wilson	62,201	5	6
Interloc Building Construction	61,380	0	0
F. R. Hipperson	61,046	0	0
W. C. Morgan	60,370	0	0
Sims, Sons & Cookes, Ltd.	56,900	0	0
W. C. Morgan (Panels, Ltd., Construction)	56,440	0	0
H. Fisher (class B only)	41,408	0	0
J. MORGAN (provisionally accepted)	51,154	0	0



**DURESCO** WASHABLE WATER PAINT

*The FIRST in the Field. The FOREMOST ever since.*

FORTY Years' Experience has stamped

**DURESCO**

as being the PREMIER Water Paint

Sole Manufacturers: **The Silicate Paint Co. & Co. Ltd.**  
J. B. ORR & Co. Ltd.  
CHARLTON, LONDON, S.E.



*As permanent  
as the Pyramids.*

**“Bitumastic”**  
Regd Trade Mark

**Prevents Rust**

and so lengthens the life of Corrugated Iron, Iron Railings, Steel and Iron Structures, etc. Renders Concrete waterproof and preserves wood.

It lasts longer, covers a greater area, and costs less than lead paints. Send a p.c. for full details.

**WAILES DOVE BITUMASTIC LTD.,**  
Newcastle-on-Tyne, London, Glasgow, Liverpool, Leeds, Cardiff, Hull, Manchester, Birmingham, Lowestoft, Dublin, etc.

Telephones in every office. Telegrams—"BITUMASTIC."

**THE LONDON ELECTRIC WIRE COMPANY and SMITHS LIMITED**

**The London Electric Wire Co. and Smiths LIMITED,**  
Playhouse Yard, Golden Lane, LONDON, E.C. 1

FOR  
RUBBER INSULATED WIRES and CABLES  
ARMATURE and MAGNET WIRES and STRIPS  
ENAMEL INSULATED WIRES  
HIGH RESISTANCE WIRES  
TELEPHONE CABLES, WIRES and CORDS  
AERIAL CABLES  
FLEXIBLE LIGHTING CORDS  
BELL WIRES FUSE WIRES  
DYNAMO BRUSHES and ARC LAMP and BRUSH FLEXIBLES

Telephone: Clerkenwell 1588 & 9.  
Telegrams: "Electric, London."

**Frederick Smith & Co.**  
(Incorporated in the London Electric Wire Co. and Smiths Limited),  
Anaconda Works, SALFORD, MANCHESTER

FOR  
HIGH CONDUCTIVITY COPPER WIRE and STRIP  
HARD DRAWN H.C. COPPER LINE WIRE and TROLLEY WIRE  
SPECIAL NON-FOULING SECTIONS  
PHOSPHOR BRONZE SPRING WIRE  
BRONZE TROLLEY WIRE  
Maximum Tensile Strain and Durability  
SILICIUM BRONZE WIRE

Telephone: Manchester Central 4640.  
Telegrams: "Anaconda, Manchester."

Contractors to H.M. Government and to all the leading Electric Light and Telephone Companies.

Price Lists and Special Quotations on application.

CODES: { A B C 5th Edition. BENTLEY'S, WESTERN UNION (Univ. and 5-Letter), and MARCONI.



# THE ARCHITECT

FOUNDED 1869.

Incorporating "The Contract Reporter," 1885.  
 "The Builder's Reporter and Engineering Times."  
 "The Building Trade," 1913.

FRIDAY, MAY 13, 1921.

Owing to the increasing demand for back numbers we are compelled to give the following notice:—

All numbers for the past twelve months 9d. each, previous to that date 1s. each.

## TENDERS, &c.

\*.\* As great disappointment is frequently expressed at the non-appearance of Contracts Open, Tenders, &c., it is particularly requested that information of this description be forwarded to the Office, Imperial Buildings, Ludgate Circus, London, E.C., not later than 2 P.M. on Wednesdays.

## CONTRACTS OPEN.

ABINGDON.—May 23.—For erection of fifty houses under the housing scheme in the borough of Abingdon. Deposit £2 2s. Messrs. J. G. T. West & Son, M.M.S.A., architects, The Knowl, Abingdon.

ALTRINCHAM.—May 18.—For erection of forty-four dwelling houses on their estate at Oldfield Brow, for the Urban District Council. There are six types of dwelling houses to be erected, and contractors may tender for the whole or any number of the houses included in this instalment. Deposit £2 2s. Mr. H. E. Brown, surveyor, Town Hall, Altrincham.

ASHFORD (MIDDLESEX).—May 26.—For works of alteration and addition to provide assistant superintendent's quarters at the West London District School. Mr. H. Dighton Pearson, F.R.I.B.A., 59 Berners Street, W. 1.

BALERNO.—For any of the following works in erection of fourteen houses at Balerno, for the Midlothian County Council. Contractors may tender for the whole or part of the work:—Digger and brick work, carpenter, joiner and ironmonger works, glazier work, plumber work, slater work and rough casting, plaster and cement works, and painter work. Mr. A. G. G. Asher, W.S., district clerk, County Rooms, Edinburgh.

BASFORD.—May 30.—For erection and completion of houses and appurtenant works in the district, as follows, for the Basford Rural District Council:—Jacksdale, Selston, eighteen houses; Rosemary Hill, Selston, fourteen; Cliff Boulevard, Kimberley, ten; High Street, Swingate, Kimberley, eighteen; The Leys, Ruddington, fourteen; Priory Road, Gedling, four. Contractors may tender for the houses and appurtenant works on all or any of above sites, and when applying for quantities must state for which sites they wish to tender. Deposit £2 2s. Mr. S. Maylan, engineer and surveyor, Public Offices, Basford, Nottingham.

BODMIN.—May 26.—For the erection of forty-eight non-parlour type houses as follows, for the Bodmin Rural District Council:—Nanstallon, Bodmin Parish, two houses; Nanstallon, Lanivet, four; Holywell, Cardinham, four; Pathway Field, St. Endellion, four; Churchtown, Helland, two; Highway, St. Kew, two; Churchtown, St. Kew, two; Churchtown, Lanlivery, four; Glebe, Luxulyan, four; Longstone, St. Mabyn, two; Tredrizzick, St. Minver Highlands, four; Stoptide, St. Minver Lowlands, four; Churchtown, Temple, two; Churchtown, St. Tudy, four; St. Winnow, four. Intending contractors may tender for the whole of above houses or for a portion of the same on any particular site. Mr. W. J. P. Jenkins, architect, Castle Hill, Bodmin.

BRAMHALL, NEAR STOCKPORT.—May 24.—For erection of twelve houses, in pairs, at Lumb Lane, Bramhall, for the Hazel Grove and Bramhall Urban District Council. Deposit £1 1s. Messrs. Adshead & Topham, architects, 23 King Street, Manchester.

CAMPSALL.—May 20.—For the various works required in erection of house at Poplar Farm, Campsall, near Doncaster. Messrs. Lunn & Kaye, architects and surveyors, Milnsbridge, Huddersfield.

CHESTER.—May 20.—For alterations to the Head Post Office. Deposit £1 1s. H.M. Office of Works, James Street, Liverpool, or The Contracts Branch, H.M. Office of Works, King Charles Street, S.W. 1.

CHESTERFIELD.—May 23.—For erection of thirty-one houses on the St. Augustine's Road site, No. 2, for the Corporation. Mr. B. Deeping, architect, Gluman Gate, Chesterfield.

CHURWELL.—For erection of central premises, for the Churwell Industrial Co-operative Society, Ltd. Mr. S. Whitehead, secretary and manager, registered office, Elland Road, Churwell.

CLAYTON WEST.—May 20.—The West Riding Education Committee invite whole tenders for the following works:—Adaptation of infants' department as a special subjects centre, at Clayton West Kaye's Council school. The West Riding Education Architect, County Hall, Wakefield.

COWPEN BEWLEY.—For building and erection on the ground of the Cricket Club of a pavilion, 24 ft. by 12 ft. Mr. G. Barratt, secretary, Cowpen Bewley, near Middlesborough.

CRAYFORD (KENT).—May 22.—For the erection of 154 houses, to be let in three contracts, for the Crayford Urban District Council:—Contract No. 1, forty-eight houses; Contract No. 2, fifty houses; Contract No. 3, fifty-six houses. Deposit £3 3s. for each contract. Mr. W. F. Bickford, engineer and surveyor, housing architect, Public Offices, Crayford.

DENNY (SCOTLAND).—May 23.—For the excavator and brickwork, carpenter and joiner, plumber, slater, plaster, and cement, electric lighting, painter work, street making, and water and gas mains at the Anderson Street site (No. 3), for the Town Council. Mr. J. Strang, architect, Falkirk.

DRONFIELD.—For erection of forty houses, or any less number, on the site in Dronfield, for the Urban District Council. Deposit £1 1s. Mr. T. H. Atkinson, architect, Council Offices, Dronfield.

GLOUCESTER.—May 25.—For houses, with drains, paths, and fences, as follows, for the Gloucester Rural District Council:—Barnwood, five pairs semi-detached four-bedroom parlour houses; Quedgeley, seven pairs semi-detached three-bedroom parlour houses; Twigworth, three pairs parlour bungalows; Longford, two pairs non-parlour houses and two pair parlour houses. The Surveyor, Berkeley House, Berkeley Street, Gloucester.

GODSTONE.—May 24.—For erection of six working-class dwellings at Dormans Land, six at Lughurst Road, Woldingham; six at Park Farm, Limpsfield; and eight at Saxbys Lane, Lingfield, for the Godstone Rural District Council. Builders wishing to tender for a smaller number of houses may do so. Deposit £2 2s. Dormans Land and Lingfield sites Messrs. Hayward & Maynard, architects, 14 John Street, Adelphi, W.C. 2; Limpsfield and Woldingham sites Mr. Granville Streatfeild, architect, 24 Old Buildings, Lincoln's Inn, W.C. 2.

GUILDFORD.—May 16.—For erection on the Guildford Park estate of forty houses designed by Messrs. Clemence & Co., architects and surveyors, for the Corporation. The houses will be divided into four groups, viz.:—One group of six pairs; two groups each of five pairs; and one of four pairs. The tenders may be for any one or more groups or for the whole number. Send names and £2 2s. deposit by May 16 to Mr. E. L. Lunn, supervising architect to the housing scheme, 36 High Street, Guildford.

HUDDERSFIELD.—May 19.—The Governors of the Royds Hall Secondary School (which is under the joint management of the Huddersfield and West Riding Education Committees) invite whole or separate tenders for the following works:—(a) interior renovations and painting; (b) alterations and adaptation of Rodys Hall and adjoining temporary building for school purposes; and (c) heating engineer's work. Mr. H. Sutcliffe, borough architect, 1 Peel Street, Huddersfield.

INVERNESS.—May 23.—For the mason, plumber, lath and plaster and painter works required in the conversion of the Inverness College buildings into a hostel, for the Inverness County Education Authority. Mr. A. Mackechnie, F.F.S., master of works to the authority, 11 High Street, Inverness.

LEEDS.—May 20.—Tenders are invited by the Improvements Committee for all combined trades in connection with the erection of 1,000 houses on the Middleton housing estate. The contract documents are so arranged that contractors may tender for any number of houses from forty-eight upwards in either brick or concrete construction. Deposit £1 1s. Mr. W. T. Lancashire, city engineer, Municipal Buildings, Leeds. Tenders, properly endorsed, must be received at the Town Clerk's Office, Great George Street, Leeds, by 10 A.M. on May 20.





EIGHT CHIMNEYS RECENTLY BUILT BY CUSTODIS, LTD.

Enquiries invited.

CUSTODIS, LTD.,

119 Victoria Street,  
WESTMINSTER. S.W.1.

TELEGRAMS—Custodimus Sowest.  
PHONE—779 Victoria.

## BEAUDEXOL

SUPER WATER PAINT  
IN 40 STANDARD SHADES

Other Reasons  
for Specifying.

**IT IS**

Beautiful  
Everlasting  
Artistic  
Uniform in shade  
Durable  
Economical  
Xcellently bound  
Obliterating  
Lustrous

**BROWN & CRITCHLEY, LTD.,**  
**LENZIE, SCOTLAND.**

Telegrams: Walpa. Lenzie.

Telephone: Kirkintilloch 51.

WHY BUY FOREIGN PENCILS?

WOLFF'S

**Royal Sovereign**

PENCILS ARE BRITISH MADE

The finest Pencil in the World for Architects, Draughtsmen, and General use because of its smoothness and great durability. Made in all degrees by THE ROYAL SOVEREIGN PENCIL CO. LTD., Falcon Pencil Works, Battersea, S.W. Famous over 100 years. By appointment to H.M. the King. Price 6d. each. Sold by all Stationers.

## HEATING

AND HOT  
WATER  
SUPPLIES.

FOR EVERY DESCRIPTION OF BUILD-  
ING, OFFICES, FACTORIES, &c. &c.

**CHAS. P. KINNELL & CO., LTD.,**  
65, Southwark Street, London, S.E. 1

## VENTILATION

EXPERT ADVICE & ESTIMATES FREE

All grades of highest quality

# WASHED SHARP SAND, SHINGLE, BALLAST.

Immediate delivery by road on site in large or small quantities.

**JOHN BENNETT,**

**2 MONTSERRAT ROAD,  
PUTNEY, S.W. 15.**

Telephone: PUTNEY 2047.



LEAKE, NOTTS.—May 16.—For erection of eight workmen's dwellings on the Kirk Leys site, East Leake, for the Leake Rural District Council. Deposit £2 2s. Mr. A. W. Jarratt, clerk, Union Offices, Loughborough.

LETCHWORTH.—May 21.—For erection of buildings, &c., for house refuse pulveriser, including high and low level concrete floors and approach roads and close-boarded fencing of site, &c., for the Urban District Council. Deposit £2 2s. Mr. G. T. Hill, surveyor, Council Offices, Broadway Chambers, Letchworth, Herts.

LOCHGELLY.—May 21.—For the following works in connection with the erection of forty houses, viz. brick work, carpenter, joiner, and ironmongery work, plumber and gasfitter work, plaster work, slater and rough-cast work, glazier work, painter work, and electric installation, for the Town Council. Deposit £2 2s. Mr. A. D. Haxton, architect, 3 High Street, Leven; Mr. C. R. Douglas, measurer, Prudential Chambers, Dunfermline; or Mr. R. Small, town clerk, Town House, Lochgelly.

LONDON.—May 25.—For the erection only of a wooden sectional building, 70 ft. by 28 ft., at the Park Fever Hospital, Hither Green, S.E. 13, for the Metropolitan Asylums Board. Deposit £1. Mr. T. Cooper, M.I.C.E., M.I.M.E., engineer-in-chief, the Office of the Board, Embankment, E.C. 4.

LONDON.—May 25.—For the extension of the Post Office Savings Bank, West Kensington, London, for the Commissioners of His Majesty's Works, &c. Deposit £1 1s. The Contracts Branch, H.M. Office of Works, King Charles Street, London, S.W. 1.

MENSTON, YORKS.—May 18.—For all or any of the works required in the erection (under a housing scheme) of a small number of dwellings at Menston, for the Wharfedale Rural District Council. Mr. O. Holmes, architect, Boroughgate, Otley.

MORLEY.—May 17.—For the following work in connection with the new gymnasium which is being erected adjoining the Morley Secondary School, viz.:—Plumber and glazier, plasterer, painter, heating engineer. Mr. J. H. Willis, clerk to the governors, Town Hall, Morley.

MORLEY.—For the whole (or any portion) of the works required in the erection of a club building, in High Street, for the Trustees of the United Services Club. Messrs. T. A. Buttery & Son, architects, Queen Street, Morley.

NEATH.—May 18.—For erection of thirty houses on the Crythan Park site, for the Town Council. Deposit £2. The Borough Engineer, Gwyn Hall, Neath.

NEW MILLS.—May 17.—For erection of two pairs of parlour-type houses on the High Hill Road site, for the New Mills Urban District Council. Deposit £1 1s. Mr. W. Swann, M.S.A., architect, St. Peter's Chambers, Stockport.

NOTTINGHAM.—May 26.—For erection and completion of six shops and dwelling houses (in pairs and singles) on the Sherwood housing estate. Deposit £2 2s. Mr. W. A. Kneller, architect, 12 Victoria Street, Nottingham.

PENRALLT.—May 18.—For erection of a new farmhouse at Penrallt, near Llantood Church, for Messrs. Davies. Mr. T. Morris George, Kilgerran, S.O.

PLYMOUTH.—May 26.—For the following work, for the Gas Committee:—Coal store roof in steel lattice-framed semi-circular girders, 68-ft. span; alterations and extension of telpher track and the supply of a new telpher machine; an electrically driven push-plate conveyor and steel framing for coal hopper. Mr. I. Carr, M.I.C.E., Farnworth, Widnes.

ROTHWELL (YORKS).—May 21.—For erection of houses on the following sites:—Rothwell Haigh site, up to ninety-six houses; Lofthouse site, up to forty-eight houses; Carlton site, up to forty-eight houses; and Thorpe site, up to forty-eight houses, for the Rothwell Urban District Council. The Council will consider tenders for one block of four houses, or as many blocks as the contractors may be in a position to undertake to complete before July 1922. Messrs. Jones & Stocks, architects, 56 Prudential Buildings, Park Row, Leeds.

SCARBOROUGH.—May 24.—For the various trades necessary for the erection of two pairs of semi-detached houses in Seamer Road, five blocks of four houses, five pairs of semi-detached in Edgehill Park, for the Town Council. Mr. H. W. Smith, A.M.I.C.E., borough engineer and surveyor, Town Hall, Scarborough.

SOUTHAMPTON.—May 26.—For erection of 210 houses at Southampton. Tenders will be considered for the construction of roads and sewers only. Drawings, specification, and a copy of the Conditions and Form of Contract may

be seen on application to the Borough Surveyor at Southampton. Bills of quantities and forms of tender may be obtained on payment of £1 1s. deposit from the Contracts Branch, H.M. Office of Works, King Charles Street, London, S.W. 1.

STALYBRIDGE.—May 30.—For the erection of forty-three houses or any smaller number, for the Housing Committee. Send application and £2 2s. deposit by May 23 to The Borough Surveyor, Town Hall, Stalybridge.

WALTON-ON-NAZE.—May 21.—For erection and completion of fourteen houses on Shore Crescent, forming part of the housing scheme, for the Urban District Council. Contractors may tender for the whole or part of the number of houses mentioned, the minimum number of houses which may be tendered for being one block of two. Deposit £2. Mr. A. J. Meakins, M.I.M. and C.E., surveyor, Town Hall, Walton-on-the-Naze.

WESTHAMPTON.—May 23.—The Westhampton Rural District Council invite separate tenders for erection of houses:—(1) four houses at East Wittering and (2) six houses at Nyetimber, in the parish of Pagham. Deposit £1 1s. each contract. Mr. J. Dovaston, A.R.I.B.A., M.C.I., Pallant House, Chichester.

WHITLEY BAY.—May 19.—The Commissioners of His Majesty's Works, &c., invite tenders from federated builders only, before 11 A.M. on May 19, for the erection of a post office at Whitley Bay. Deposit £1 1s. The District Surveyor, H.M. Office of Works, 63 Westgate Road, Newcastle-on-Tyne; or the Contracts Branch, H.M. Office of Works, King Charles Street, London, S.W. 1.

## TENDERS.

### BOURNEMOUTH.

For the construction of reinforced concrete bridge, St. Stephens's Road, for the Town Council. Mr. F. P. Dolamore, borough engineer.

Edwards Construction Co.	£11,740	0	0
C. V. Buchan & Co., Ltd.	10,794	0	0
J. & W. Stewart	10,766	0	0
A. Selby	10,248	19	6
Playfair & Toole	9,444	0	0
J. Gill, Ltd.	9,430	0	0
Fothergill Bros., Ltd.	9,288	0	0
F. Bevis, Ltd.	9,127	0	0
A. & F. J. Leather	8,557	0	0
Somerville & Co., Ltd.	8,450	0	0
Industrial Construction, Ltd.	8,380	0	0
H. Middleton	8,173	8	4
G. Munday & Sons, Ltd.	7,969	0	0
J. Francis	7,777	0	0
P. Lind & Co.	7,750	0	0
British Construction Co.	7,327	8	0
Bournemouth and District Builders' Guild	6,774	0	0
J. McWilliam & Son	6,695	0	0
J. Croad	6,300	0	0
Grounds & Newton	5,989	13	6

### LONDON.

For alterations and additions to St. Katherine's Training College, Tottenham, for the S.P.C.K. Messrs. Young & Hall, architects, 17 Southampton Street, W.C. 1.

Foster & Dicksee, Ltd.	£12,764	0	0
Trollope & Colls, Ltd.	11,784	0	0
Holloway Bros., Ltd.	11,250	0	0
H. Knight & Son	10,996	0	0
T. Rider & Son	10,797	0	0
J. W. Falkiner & Son	10,675	0	0

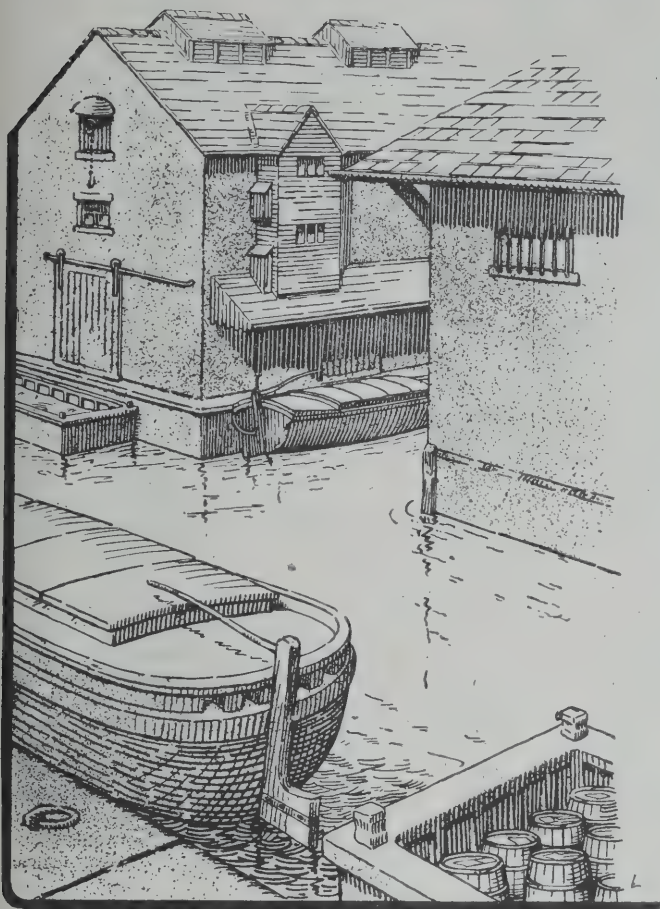
### LOWER BEBINGTON.

For the erection of sixteen houses in Bebington Road, for the Urban District Council. The Surveyor, Lower Bebington.

J. Merritt	£16,134	13	6
A. W. Bevan	15,795	0	0
R. L. Elder	15,448	0	0
J. J. Blackburn	15,176	17	6
Jones & Hough	14,660	0	0
Joseph Davies	14,469	6	0
A. Vaughan & Sons	14,357	5	10
Jonas & Todd	14,286	16	8
F. & T. Chappell	14,215	5	0
J. Tate	12,200	0	0
Birkenhead House Construction Co., Ltd.	11,952	0	0
JACKSON & HOLT, Moreton*	11,900	0	0

\* Provisionally accepted.





## RIVERSIDE BUILDINGS

Walls next rivers are the most difficult of all walls to keep dry. A rendering of cement treated with 'Pudlo' Brand powder, inside or outside the wall, gives a permanently dry interior.

A concreted cellar which has been thus constructed at High Wycombe has four feet of water surrounding it. The interior is perfectly dry. A more stringent test for waterproofing a cellar is difficult to imagine.

## RIISING DAMPNES IN FLOORS

Absolute dryness is essential in the floors of many warehouses and workshops. The incorporation of 'Pudlo' Brand waterproofing powder in the concrete forming such floors ensures a bone-dry surface, even when the underlying soil is waterlogged. Our product was used in the floors of the five National Granaries erected during the War. This obviated the germination of the grain through dampness.

Regd.

**'PUDLO'**  
BRAND  
CEMENT WATERPROOFER

Trade  
Mark.

Used also for Damp Walls, Leaking Tanks, Flat Roofs, Reservoirs, Baths, Garage Pits, Concrete Buildings, etc.

Used by the Admiralty, the War Office, the India Office, the Crown Agents, the Office of Works, the General Post Office, etc.

BRITISH! and apart from patriotism, THE BEST!

Sole Proprietors and Manufacturers: Kerner-Greenwood & Co. Ltd., Ann's Fort, King's Lynn.  
J. H. KERNER-GREENWOOD, Managing Director.

## CARRON — HIGH-CLASS COOKING APPARATUS

*The World's Standard.*

Used in the leading INSTITUTIONS, INFIRMARIES, ASYLUMS, SCHOOLS, WORKHOUSES, HOTELS, RESTAURANTS, HYDROPATHICS, MANSIONS, CLUBS, INDUSTRIAL CANTEENS, STEAMSHIPS, etc., and adopted by H.M. GOVERNMENT.



Large Kitchen recently fitted by Carron Company, showing a serviceable variety of Carron Cooking Apparatus capable of cooking for a very large number of persons.

The Company are always pleased to specify for any style, size, or combination of Cooking Apparatus for COAL, GAS, STEAM, or ELECTRICITY, on receipt of plans or particulars, or to offer suggestions and submit drawings for alterations or extensions.

*Write for No. 18F Illustrated Cooking Apparatus Catalogue, Free on Request.*

**CARRON COMPANY**  
INCORPORATED IN GREAT BRITAIN

— Works : —  
**CARRON, Stirlingshire.**

— Branch Works : —  
**Phoenix Foundry, Sheffield.**

Showrooms: LONDON—15 Upper Thames St., E.C. 4. and 50 Berners St., Oxford St., W. 1; LIVERPOOL—22-30 Redcross St.; GLASGOW—125 Buchanan St.; EDINBURGH—114 George St.; BRISTOL—6 Victoria St.; BIRMINGHAM—218-222 Corporation St.  
Offices: MANCHESTER—14 Ridgefield; NEWCASTLE-ON-TYNE—15 Prudhoe St.



# THE ARCHITECT

FOUNDED 1869.

Incorporating "The Contract Reporter," 1885.  
"The Builder's Reporter and Engineering Times."  
"The Building Trade," 1913.

FRIDAY, MAY 20, 1921.

Owing to the increasing demand for back numbers we are compelled to give the following notice:—

All numbers for the past twelve months 9d. each, previous to that date 1s. each.

## TENDERS, &c.

"As great disappointment is frequently expressed at the non-appearance of Contracts Open, Tenders, &c., it is particularly requested that information of this description be forwarded to the Office, Imperial Buildings, Ludgate Circus, London, E.C., not later than 2 P.M. on Wednesdays.

## CONTRACTS OPEN.

ABERSYCHAN.—June 2.—For (1) construction of roads and sewers at the Manor Road site, (2) the erection of 100 to 115 houses, for the Abersychan Urban District Council. Deposit £2 2s. The Architect's Department, Co-operative Wholesale Society, Ltd., St. Mary Street, Cardiff.

ANDOVER.—May 30.—For erection of the following houses, in pairs and blocks of three, for the Andover Town Council: Contract No. 1—East Millway Road, seventeen houses; No. 2—Vigo Road, sixteen houses. Send applications and £2 2s. deposit by May 30 to Mr. H. R. Cowley, A.R.I.B.A., M.S.A., &c., Bank Chambers, 26 High Street, Southend-on-Sea.

ASHBOURNE.—May 27.—For erection and completion of a war memorial arch, in Darley Dale stone or other approved gritstone, for the Ashbourne War Memorial Committee. Mr. D. Powell, surveyor, Ashbourne Urban District Council.

ASHFORD (MIDDLESEX).—May 26.—For works of alteration and addition to provide assistant superintendent's quarters at the West London District School. Mr. H. Dighton Pearson, F.R.I.B.A., 59 Berners Street, W. 1.

BASFORD.—May 30.—For erection and completion of houses and appurtenant works in the district, as follows, for the Basford Rural District Council:—Jacksdale, Selston, eighteen houses; Rosemary Hill, Selston, fourteen; Cliff Boulevard, Kimberley, ten; High Street, Swingate, Kimberley, eighteen; The Leys, Ruddington, fourteen; Priory Road, Gedling, four. Contractors may tender for the houses and appurtenant works on all or any of above sites, and when applying for quantities must state for which sites they wish to tender. Deposit £2 2s. Mr. S. Maylan, engineer and surveyor, Public Offices, Basford, Nottingham.

BEXLEY HEATH.—June 2.—For erection of the following houses on a site lying on the Northern side of Hartford Road, for the Urban District Council—viz.: Six pairs type B3, design No. 177; five pairs type A2, design No. 134; two blocks of four each, A2 (intermediate houses) and A3 (end houses), design No. 151. Specifications and quantities can be obtained and drawings inspected at the office of Mr. W. M. Epps, A.R.I.B.A., on the Council's Welling housing scheme, where houses of the same type are in course of erection. Mr. T. G. Baynes, clerk, Council Offices, Bexley Heath.

BODMIN.—May 26.—For the erection of forty-eight non-parlour type houses as follows, for the Bodmin Rural District Council:—Nanstallon, Bodmin Parish, two houses; Nanstallon, Lanivet, four; Holywell, Cardinham, four; Pathway Field, St. Endellion, four; Churchtown, Helland, two; Highway, St. Kew, two; Churchtown, St. Kew, two; Churchtown, Lanlivery, four; Glebe, Luxulyan, four; Longstone, St. Mabyn, two; Tredrizzick, St. Minver Highlands, four; Stoptide, St. Minver Lowlands, four; Churchtown, Temple, two; Churchtown, St. Tudy, four; St. Winnow, four. Intending contractors may tender for the whole of above houses or for a portion of the same on any particular site. Mr. W. J. P. Jenkins, architect, Castle Hill, Bodmin.

BURNHOPE.—May 30.—For erection of public urinal, &c., at Burnhope Colliery village, for the Lanchester Rural District Council. Mr. J. R. Lupton, surveyor, Council Offices, Lanchester, Durham.

CARDIFF.—May 26.—For the following works, subject to their usual general conditions, for the Glamorgan County Council: (1) New infants' department at Kingsbridge, near Gowerton; (2) taking down temporary building at Vernon Place (Briton Ferry) Council school and removing and re-erecting it at Clydach girls' and infants' Council school; (3) Penclawdd mixed Council school—sundry repairs; (4) new boys' school at South Bargoed; (5) Maendy (near Cowbridge) Council school—repairing chimney stack. The Glamorgan County Hall, Cardiff.

COVENTRY.—June 7.—For erection of a new sorting office at Coventry. Deposit £1 1s. The head post-office at Coventry, or the Contracts Branch, H.M. Office of Works, King Charles Street, London, S.W. 1.

CREWE.—June 14.—For alterations to Crewe Station Sorting Office, for the Commissioners of His Majesty's Works, &c. Deposit £1 1s. The Head Post Office at Crewe or the Contracts Branch, H.M. Office of Works, King Charles Street, London, S.W. 1.

EUXTON.—May 25.—For erection of two houses at Euxton, one for the Chorley Rural District Council and the other for the Lancashire County Council. Mr. J. B. Jolly, architect, 9 High Street, Chorley.

FOLESHILL.—May 30.—For construction of the following houses, for the Foleshill Rural District Council: Bulkington Road, Bedworth, 44; Binley, 20; Holbrooks, Foleshill, 14; Keresley, 16. Deposit £2. Mr. A. E. Newey, engineer and surveyor, Council Offices, Foleshill.

FRIERN BARNET.—June 10.—For erection of 150 houses of various types, for the Friern Barnet Urban District Council. Contractors may tender for two or more of these houses, or the whole, and must state how many they desire to tender for in their application. Mr. F. H. Shearley, architect, 1 Featherstone Buildings, High Holborn, W.C. 2. Send £2 2s. deposit to Mr. E. Goodship, clerk, Council Offices, The Priory, Friern Barnet, N. 11.

GLOUCESTER.—May 25.—For houses, with drains, paths, and fences, as follows, for the Gloucester Rural District Council:—Barnwood, five pairs semi-detached four-bedroom parlour houses; Quedgeley, seven pairs semi-detached three-bedroom parlour houses; Twigworth, three pairs parlour bungalows; Longford, two pairs non-parlour houses and two pair parlour houses. The Surveyor, Berkeley House, Berkeley Street, Gloucester.

GREENWICH.—June 13.—For erection and completion of the following houses on portions of the Charlton housing estate, for the Greenwich Borough Council—viz.: Forty-three pairs A3 type, seventy-nine pairs B3 type, and six pairs B4 type. Deposit £2 2s. Mr. Alfred Roberts, F.R.I.B.A., architect, 92 London Street, Greenwich.

HARTSHORNE.—May 26.—For erection and completion by July 1922 of sixty houses of two types, within the area, as follows, for the Hartshorne and Seals Rural District Council: Twenty-two houses on Overseal No. 1 site adjoining Overseal Post Office; ten houses on Burton Road site, Overseal (site between Coronation Street and chapel); six houses on Lullington Road site (first field on right hand from "Robin Hood" public-house); ten houses on Nether Seal site (adjoining "The Seals Inn"); and twelve houses on Hartshorne site (opposite Gorsley Mount Cottages). Together with fencing, footpaths, drainage, and wells on each lay-out. Deposit £2 2s. Mr. V. R. Brice, architect and surveyor, Moira, Burton-on-Trent.

HURST.—For erection and completion of eighteen houses in Broadoak Road, Hurst, near Ashton-under-Lyne, for the Hurst Urban District Council. Deposit £1 1s. Messrs. Eaton, Sons and Cantrell, Stamford Street, Ashton-under-Lyne.

LANARK.—May 30.—The District Committee of the Lower Ward of the County of Lanark invite tenders for the excavator, brick, &c.; carpenter, joiner, and ironmongery; glazier, slater and roughcast, plumber and gasfitting, plaster and concrete and painter works of the dwelling houses proposed to be erected under the following schemes—viz.: Eastfield (Rutherglen) scheme, 102 houses, thirty-eight blocks; Auchinairn scheme, seventy-two houses, eighteen blocks; Carmunnock scheme, twenty-four houses, eight blocks. Plans of the Eastfield scheme may be seen at the office of Messrs. Lennox & M'Math, architects, 103 Bath Street, Glasgow, and plans of the Auchinairn and Carmunnock schemes may be seen at the office of Messrs. H. & D. Barclay, architects, 440 Sauchiehall Street, Glasgow. Deposit £1 1s. for each schedule. Mr. J. A. M'Callum, district clerk, 175 West George Street, Glasgow.



SPECIFY  
**THE MOST EFFICIENT**

## VAUGHAN'S PURE BITUMEN DAMP-PROOF COURSES

Made from Highest-Grade Materials.  
Extensively specified for Important  
Contracts, Housing Schemes, etc.

## ROOFING FELTS

**"REXOID"** SELF-FINISHED BITUMEN  
ROOFING.

**"DUREX"** SMOOTH, FLEXIBLE FELT FOR  
ROOFING AND SARKING.

**"DURITE"** SUPERIOR BITUMEN  
UNDERSLATING, Etc.

For Samples, etc., apply to Manufacturers:

**H. R. VAUGHAN & CO. Ltd.,**  
(Dept. A) Works: GATESHEAD-ON-TYNE.  
Preston, Lancs, and Bishop Auckland.

## LLOYDS BANK LIMITED.



Chairman:  
Sir RICHARD V. VASSAR-SMITH, Bart.

Deputy-Chairman:  
J. W. BEAUMONT PEASE.

HEAD OFFICE: 71, LOMBARD STREET, E.C. 3.

CAPITAL SUBSCRIBED £70,688,980

CAPITAL PAID UP - 14,137,796

RESERVE FUND - 10,000,000

DEPOSITS, &c. - 346,397,553

ADVANCES, &c. - 151,079,173

THIS BANK HAS OVER 1,500 OFFICES  
IN ENGLAND AND WALES.

Colonial and Foreign Department:  
17, CORNHILL, LONDON, E.C. 3.

AFFILIATED BANKS:  
THE NATIONAL BANK OF SCOTLAND LIMITED.  
LONDON AND RIVER PLATE BANK, LIMITED.

AUXILIARY:  
LLOYDS AND NATIONAL PROVINCIAL FOREIGN BANK LIMITED.



## "BASECO" PATENT BOILER.

The finest Boiler made for Domestic Hot Water  
Supply and for Hot Water Heating with Radiators.

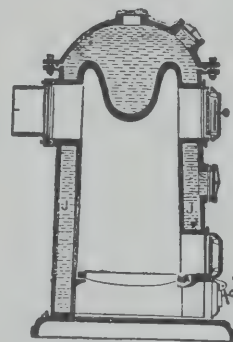
**ABSOLUTELY UNEQUALLED FOR EFFICIENCY  
AND ECONOMY.**

BURNS COAL, COKE, ANTHRACITE AND HOUSEHOLD REFUSE.

**British Invention and Manufacture.**

Through all Heating and Hot Water Engineers and Builders' Merchants.

Patentees: **O. BRUSTER & DE LAUNOIT**, 4 Lloyd's Avenue,  
Succs. to H. C. ROBOTOM & CO. LONDON, E.C.3.



Section  
showing Water Pocket.

All grades of highest quality

## WASHED SHARP SAND, SHINGLE, BALLAST.

Immediate delivery by road on site in large or small quantities.

**JOHN BENNETT,** 2 MONTERRAT ROAD,  
PUTNEY, S.W. 15.

Telephone: PUTNEY 2047.



**LIVERPOOL.**—May 25.—For works required in the foundations for rotary converters, &c., at the electric sub-stations at Seaforth and Bank Hall (Liverpool), for the Lancashire and Yorkshire Railway Company. The Engineer's Office, Hunt's Bank, Manchester.

**MILFORD HAVEN.**—May 26.—For erection of forty-four houses on their Shakespeare Avenue site, for the Urban District Council. Deposit £2 2s. Mr. H. Veder Elford, architect, 16 Hamilton Terrace, Milford Haven.

**MILNGAVIE.**—May 28.—For the following works in connection with the erection of sixty houses, for the Town Council, viz.: Digger, brick and concrete work; carpenter, joiner and ironmonger work; slater and roughcast work; plumber and gasfitter work; plaster work; painter work; glazier work; ranges and grates; timber, fencing and gates. Mr. J. A. Laird, architect, 131 West Regent Street, Glasgow.

**MORLEY.**—May 27.—For the various works required in alteration of house in High Street, for Mrs. R. Philpot. Mr. G. B. Clegg, M.S.A., architect, surveyor and valuer, 5 King Street, Morley.

**NOTTINGHAM.**—May 26.—For erection and completion of six shops and dwelling houses (in pairs and singles) on the Sherwood housing estate. Deposit £2 2s. Mr. W. A. Kneller, architect, 12 Victoria Street, Nottingham.

**OAKHAM.**—May 27.—For erection of ten houses in Station Road, for the Town Council. Deposit £2 2s. Mr. G. C. Wooldridge, surveyor, Church Street, Oakham.

**ORMSKIRK.**—June 11.—For erection and completion of thirty-two houses, being the first part of the Council's housing scheme, for the Urban District Council. Deposit £3 3s. Mr. F. C. Hill, clerk, the Council Offices, Burscough Street, Ormskirk.

**PLYMOUTH.**—May 26.—For the following work, for the Gas Committee:—Coal store roof in steel lattice-framed semi-circular girders, 68-ft. span; alterations and extension of telpher track and the supply of a new telpher machine; an electrically driven push-plate conveyor and steel framing for coal hopper. Mr. I. Carr, M.I.C.E., Farnworth, Widnes.

**ROMFORD.**—May 30.—For erection of thirty-eight cottages at Crowlands and Fiddlers Hall Farms, Romford, for the Essex County Council. Deposit £2 2s. Mr. J. Stuart, F.R.I.B.A., County Architect's Office, Springfield Old Court, Chelmsford.

**ROYSTON, NEAR BARNSELY.**—May 28.—For (1) the whole of the works required in the erection of 142 houses, situate in Station Road, and (2) roadmaking and sewers in connection with the scheme, for the Royston Urban District Council. Messrs. Dyson, Cawthorne & Coles, architects, 10 Regent Street, Barnsley.

**SCARBOROUGH.**—May 24.—For the various trades necessary for the erection of two pairs of semi-detached houses in Seamer Road, five blocks of four houses, five pairs of semi-detached in Edgehill Park, for the Town Council. Mr. H. W. Smith, A.M.I.C.E., borough engineer and surveyor, Town Hall, Scarborough.

**SITTINGBOURNE.**—June 11.—For erection of a school to accommodate 205 boys, for the Governors of the Borden School Trust. Send application and £2 deposit by May 25 to Mr. W. H. Robinson, F.S.A., architect, Room 69, Sessions House, Maidstone.

**STAINES.**—June 4.—For the completion of certain houses and the re-erection of others, making a total of ninety-four houses of various types, for the Staines Urban District Council. It is the intention of the Council to erect these houses in instalments, in the first instance of thirty-four houses, and then in blocks of thirty houses, each instalment to be completed for occupation before commencing the next. The Council reserve the right to terminate the contract at the completion of any of these instalments. Deposit £2 2s. Mr. E. J. Barrett, A.M.I.C.E., Town Hall, Staines.

**STALYBRIDGE.**—May 30.—For the erection of forty-three houses or any smaller number, for the Housing Committee. Send application and £2 2s. deposit by May 23 to The Borough Surveyor, Town Hall, Stalybridge.

**STROUD, GLOS.**—June 1.—For erection of forty-six houses, in pairs, on the Folly Lane site, for the Urban District Council. There are three types to be erected, and contractors may tender for the whole or any number of houses. The roads, sewers, and water mains have been laid, and the houses are all on one site. Mr. A. Murray-Smith, A.M.I.C.E., architect, Town Hall, Stroud, Glos.

**TAVISTOCK.**—May 26.—For erection of (a) twelve houses at Lifton and (b) six houses at Meavy, for the Tavistock Rural District Council. Mr. A. Kenneth G. Johnstone, clerk, Town Hall Chambers, Tavistock.

**WHITEFIELD, LANCs.**—May 28.—For erection of eighteen houses on the Elms Street extension site, being the first instalment of the second part of the housing scheme, along with the construction of Street No. 3, comprising 2,267 sup. yards tar macadam to carriageways, footpath, and 194 lineal yards of 9 in. sewer, for the Whitefield Urban District Council. The work is comprised in bill of quantities divided as follows: (Bill No. 1) one block of two houses, type B, southerly aspect; (2) two blocks of two houses, type B, southerly aspect; (3) two blocks of four houses, type A, east aspect; (4) one block of four houses, two A and two B, south aspect; (5) house drains and fencing; (6) streets and sewers. Contractors may tender for the works included in any one bill of quantities or for the whole. Deposit £2 2s. Mr. G. M. Denton, architect, Council Offices, Whitefield, Lancs.

**WINCHESTER.**—May 24.—For alterations to Winchester Post-Office. The Head Post-Office at Winchester and the Contracts Branch, H.M. Office of Works, King Charles Street, London, S.W. 1.

**WOODFORD GREEN, ESSEX.**—May 28.—For erection of a tuberculosis pavilion at "Hart's" Sanatorium, Snakes Lane, Woodford Green, Essex, for the East Ham Town Council. Deposit £2 2s. Mr. J. Birch, borough engineer, Town Hall, East Ham, E. 6.

## TENDERS.

### ASHBY WOULDs.

For the erection of eight houses at Albert Village, for the Urban District Council. Messrs. Baines & Provis, architects, Leicester.

H. Sabine	£7,376 0 0
F. C. Jones	6,914 14 1
A. L. & H. W. Chown	6,850 0 0
W. Simkin	6,802 13 0
BOWLES & SON, Leicester (provisionally accepted)	5,724 0 0

### NORTHWICH.

For the erection of fifty-four houses, for the Rural District Council.

J. J. Blackburn	£46,050 0 0
G. Holmes & Co.	45,476 0 0
Curzon & Noden	44,240 0 0
R. WHEELER, Manchester (provisionally accepted)	40,036 0 0
I. Hulse (for forty-six houses)	38,399 14 4

### TRURO.

For erection of the following houses for the Truro Rural Council, tender accepted from Mr. N. Jory, Hayle.

Twenty-four houses at Veryan, Gerrans, St. Just, St. Mawes, £900 per house; four houses at Grampond Road, £841 per house; six houses at Trispin, £820 per house.

### WALTHAM CROSS.

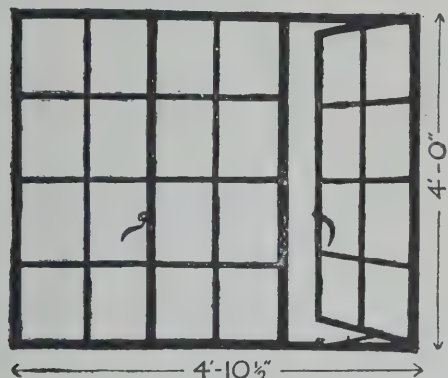
For the erection of 118 houses on the Paul's nursery site, Waltham Cross, for the Cheshunt Urban District Council. Mr. J. E. Sharpe, engineer and surveyor.

West & Brooks	£119,764 11 10
G. Slade & Co., Ltd.	117,897 0 0
Trollope & Colls	117,768 0 0
Unit Construction Co.	115,350 0 0
W. Lawrence & Son	112,950 0 0
J. W. Ellingham	108,478 0 0
Wilmott & Son	107,264 0 0
A. Monk	104,500 0 0
C. Miskin & Sons	103,434 0 0
H. Lacey & Son	102,300 0 0
A. L. & H. W. Chown	101,400 0 0
Fairhead & Son	101,369 0 0
A. Faisey & Son	98,993 5 8
Rowley Bros	98,165 0 0
W. Jones & Sons	94,955 0 0
F. Chandler*	93,417 12 4
R. M. Hughes (withdrawn)	87,631 0 0
J. Oram & Son†	52,790 14 7
D. J. Jennings**	36,860 0 0
F. W. Surridge‡	14,228 10 0
T. A. Rainbow§	9,007 11 8
G. P. Trentham§	8,483 16 4

\* Excludes Bill No. 6 (site works); \*\* for Bills 2, 4, 5, and 6 only (thirty houses and site works); † omitting Bill No. 3 (fifty houses) and Bill No. 6 (site works); ‡ for site works (Bill No. 6 only); § for Bill No. 5 (twelve houses only); § for site works (Bill No. 6 only).



# NOT ONLY CHEAPEST BUT MOST FOR THE MONEY



IT WILL COST  
ANYWHERE FROM  
7/- TO 10/- TO GIVE  
THIS WINDOW ONE  
COAT OF PAINT ON  
THE JOB

CRITTALL STANDARD METAL WINDOWS ARE SUPPLIED WITH TWO COATS OF PAINT BOTH OF THEM BAKED ON AND REQUIRE ONLY A FINISHING COAT AFTER ERECTION.

WHEN YOU COMPARE THE CRITTALL STANDARD METAL WINDOW WITH WOODEN WINDOWS OR WITH OTHER MAKES OF STEEL WINDOW — REMEMBER THAT **NO OTHER WINDOWS** INCLUDE WITHOUT EXTRA CHARGE **ALL** THE FOLLOWING FEATURES—

1. TWO COATS OF ENAMEL PAINT  
-STOVE FINISHED
2. CURTAIN ROD BRACKETS
3. EASY CLEANING HINGES
4. GUARANTEED ACCURACY OF  
GLASS SIZES
5. ALL NECESSARY HARDWARE
6. FREE DELIVERY

## CRITTALL BRAINTREE

# THE ARCHITECT

FOUNDED 1869.

Incorporating "The Contract Reporter," 1885.  
"The Builder's Reporter and Engineering Times,"  
"The Building Trade," 1913.

FRIDAY, MAY 27, 1921.

*Owing to the increasing demand for back numbers we are compelled to give the following notice:—*

*All numbers for the past twelve months 9d. each, previous to that date 1s. each.*

## TENDERS, &c.

\*. As great disappointment is frequently expressed at the non-appearance of Contracts Open, Tenders, &c., it is particularly requested that information of this description be forwarded to the Office, Imperial Buildings, Ludgate Circus, London, E.C., not later than 2 P.M. on Wednesdays.

## CONTRACTS OPEN.

**ABERSYCHAN.**—June 2.—For (1) construction of roads and sewers at the Manor Road site, (2) the erection of 100 to 115 houses, for the Abersychan Urban District Council. Deposit £2 2s. The Architect's Department, Co-operative Wholesale Society, Ltd., St. Mary Street, Cardiff.

**ANDOVER.**—May 30.—For erection of the following houses, in pairs and blocks of three, for the Andover Town Council: Contract No. 1—East Millway Road, seventeen houses; No. 2—Vigo Road, sixteen houses. Send applications and £2 2s. deposit by May 30 to Mr. H. R. Cowley, A.R.I.B.A., M.S.A., &c., Bank Chambers, 26 High Street, Southend-on-Sea.

**ATTLEBOROUGH.**—June 6.—For erection of 100 houses, in one contract or in groups of 22, 24, 26 and 28 houses, and also for the construction of new streets, sewers, &c., in connection with the housing scheme, Attleborough, for the Corporation of Nuneaton. Deposit £2 2s. Mr. R. C. Moon, A.M.I.C.E., borough surveyor, Municipal Offices, Nuneaton.

**BASINGSTOKE.**—For erection of thirty-two houses in the several parishes, as follows, for the Basingstoke (Hants) Rural District Council:—Newnham, eight; Cliddesden, 10; Sherborne St. John, two; Monk Sherborne, four; Mortimer West, two; Upton Grey, two; Wootton St. Lawrence (Newfound), four. Builders may tender for all or any of the number. Messrs. Wallis and Smith, F.R.I.B.A., architects, Cross Street, Basingstoke.

**BATH.**—May 30.—For erection (in lots of four) of 196 houses on their Englishcombe Lane site, for the Corporation. Send application and £2 2s. deposit by May 30 to Mr. A. J. Taylor, F.S.A., architect, 18 New Bond Street, Bath.

**BEXLEY HEATH.**—June 2.—For erection of the following houses on a site lying on the Northern side of Hartford Road, for the Urban District Council—viz.: Six pairs type B3, design No. 177; five pairs type A2, design No. 134; two blocks of four each, A2 (intermediate houses) and A3 (end houses), design No. 151. Specifications and quantities can be obtained and drawings inspected at the office of Mr. W. M. Epps, A.R.I.B.A., on the Council's Welling housing scheme, where houses of the same type are in course of erection. Mr. T. G. Baynes, clerk, Council Offices, Bexley Heath.

**BO'NESS.**—For any of the following work for erection of a second instalment of houses on the Craigallan site, viz.:—excavator, brick, &c.; plumber, &c.; work; carpenter and joiner; glazier, slater work; plaster work; painter work, and electrical installation. Mr. J. Loudon, director of housing, Burgh Chambers, Bo'ness.

**BRAINTREE.**—June 6.—For the conversion and adaptation of "Bocking Place," Braintree, into a higher elementary school, for the Education Committee of the Essex County Council. Deposit £2 2s. Mr. J. Stuart, F.R.I.B.A., County Architect, Old Court, Springfield, Chelmsford.

**CALLINGTON.**—June 6.—For erection of fourteen houses (first instalment), comprising four pairs parlour-type and three pairs non-parlour, for the Callington Urban District Council. Mr. C. Truscott, architect, Downgate, Pensilva, Liskeard.

**COVENTRY.**—June 7.—For erection of a new sorting office at Coventry. Deposit £1 1s. The head post-office at Coventry, or the Contracts Branch, H.M. Office of Works, King Charles Street, London, S.W. 1.

**CREWE.**—June 14.—For alterations to Crewe Station Sorting Office, for the Commissioners of His Majesty's Works, &c. Deposit £1 1s. The Head Post Office at Crewe or the Contracts Branch, H.M. Office of Works, King Charles Street, London, S.W. 1.

**DURSLEY.**—June 2.—For erection of forty houses in pairs, as follows, for the Dursley Rural District Council:—Twenty on the Cam site, six on the Coaley site, six on the Kingswood site, eight on the Uley site. Contractors may tender for the whole or any particular site. Deposit £2 2s. Mr. V. A. Lawson, A.M.I.C.E., L.R.I.B.A., Council Chambers, Cirencester.

**FAWDON.**—June 6.—For erection of a pair of type A and two pairs of type B houses at Fawdon, close to Coxlodge Station, for the Castle Ward Rural District Council. The Sanitary Surveyor, Fernlea, Ponteland.

**FOLESHILL.**—May 30.—For construction of the following houses, for the Foleshill Rural District Council: Bulkington Road, Bedworth, 44; Binley, 20; Holbrooks, Foleshill, 14; Keresley, 16. Deposit £2. Mr. A. E. Newey, engineer and surveyor, Council Offices, Foleshill.

**FRANCE.**—June 16.—For construction of twenty-three cemeteries in France for the Imperial War Graves Commission. Tender forms, Contract 1921, to Secretary (Works Department), Imperial War Graves Commission, 82 Baker Street, London, W. 1. Tender forms ready June 20. Deposit, 15 guineas, returnable.

**FRIERN BARNET.**—June 10.—For erection of 150 houses of various types, for the Friern Barnet Urban District Council. Contractors may tender for two or more of these houses, or the whole, and must state how many they desire to tender for in their application. Mr. F. H. Shearley, architect, 1 Featherstone Buildings, High Holborn, W.C. 2. Send £2 2s. deposit to Mr. E. Goodship, clerk, Council Offices, The Priory, Friern Barnet, N. 11.

**GLOSSOP.**—June 18. For taking down the present cook-house, &c., at the Poor-Law Institution and for rebuilding same, also for providing and fitting modern steam cooking apparatus therein, for the Guardians. Deposit £2 2s. Mr. C. F. V. Fenton, clerk, Poor-Law Offices, Glossop.

**GRANTHAM.**—For erection of thirty-eight houses on the Dysart Road site, for the Borough Council, as follows:—Five pairs parlour type; six pairs non-parlour type, and four blocks of four non-parlour type. Deposit £2 2s. Mr. F. O. Donaldson, M.S.A., borough architect, Guildhall, Grantham.

**GREENOCK.**—June 6.—For the following works required in erection of eighteen tenements and six double cottages in connection with the Upper Cornhaddock housing scheme, for the Corporation, viz.:—(1) Digger, mason and brick works; (2) carpenter, joiner and ironmongery works; (3) glazier work; (4) slater work and roughcasting; (5) plumber work; (6) plaster work; (7) electric lighting work; (8) painter work. Deposit £1 1s. The Office of Public Works, Municipal Buildings, Greenock.

**GREENWICH.**—June 13.—For erection and completion of the following houses on portions of the Charlton housing estate, for the Greenwich Borough Council—viz.: Forty-three pairs A3 type, seventy-nine pairs B3 type, and six pairs B4 type. Deposit £2 2s. Mr. Alfred Roberts, F.R.I.B.A., architect, 92 London Street, Greenwich.

**GUILDFORD.**—For the erection of cottages in connection with housing schemes as follows, for the Guildford Rural District Council:—Parish of Send and Ripley, twelve cottages; parish of West Horsley, twelve cottages. Bills of quantities are not supplied. Mr. S. G. Parry, architect (Guildford R.D.C., Northern District), 28 Victoria Street, Westminster, London, S.W.

**HANLEY.**—June 8.—For the erection of hutting accommodation and alterations to the Employment Exchange at Hanley, Staffs, for the Commissioners of His Majesty's Works, &c. Deposit £1 1s. The Head Post Office at Hanley, or the Contracts Branch, H.M. Office of Works, King Charles Street, London, S.W. 1.

**HAVANT.**—May 30.—For erection of fifty houses, in pairs and blocks of four, on the housing site, West Street (being the second portion of the total scheme), for the Havant Urban District Council. Send application and £2 2s. deposit by May 30. Mr. A. E. Stallard, F.S.I., architect, Council Offices, Havant, Hants.





EIGHT CHIMNEYS RECENTLY BUILT BY CUSTODIS, LTD.

Enquiries invited.

CUSTODIS, LTD.,

TELEGRAMS—Custodomus Sowest.  
PHONE—779 Victoria.

119 Victoria Street,  
WESTMINSTER, S.W.1

## HEATING

AND HOT  
WATER  
SUPPLIES.

FOR EVERY DESCRIPTION OF BUILD-  
ING, OFFICES, FACTORIES, &c. &c.

CHAS. P. KINNELL & CO., LTD.,

65, Southwark Street, London, S.E. 1

## VENTILATION

EXPERT ADVICE & ESTIMATES FREE

## ASPHALTE

Send your inquiries to:

F. J. L. ROBERTSON,

22 Oakdale Road,

Streatham, S.W. 16.

Telephone: STREATHAM 1044.

Quotations given for Work in Town or Country.

Also BITUMEN DAMPCOURSES, ROOFING FELTS, Etc., Etc.

## VENUS

17 degrees

Blacklead

6B (Softest)

to

9H (Hardest)

BLACKLEAD:  
6d. each, 5/6 doz.  
COPYING:  
4d. each, 3/9 doz.

For  
Architects  
& Builders

Of all Stationers &  
Drawing Office Suppliers

## PENCILS

"VENUS" Lower Clapton Road E.5.

All grades of highest quality

## WASHED SHARP SAND, SHINGLE, BALLAST.

Immediate delivery by road on site in large or small quantities.

JOHN BENNETT,

2 MONTSERRAT ROAD,  
PUTNEY, S.W. 15.

Telephone: PUTNEY 2047.



**HEMSWORTH.**—June 4.—For the following works, for the West Riding Education Committee:—Hemsworth Hall, Contract No. 1, adaptation and conversion into a secondary school. Trades—Builder and slater, joiner, plumber, plasterer and painter. Mr. H. Wormald, A.R.I.B.A., education architect, County Hall, Wakefield.

**HINDLEY.**—June 6.—For the conversion of a building in the town's yard, Wigan Road, to a motor-garage, and for the erection of a disinfecting station in the stable yard, Cross Street, for the Urban District Council. Mr. O. P. Abbott, surveyor, Council Offices, Hindley.

**KEIGHLEY.**—June 3.—For the various works in connection with the erection of one block of four houses on the Broomhill estate. The Borough Engineer, Town Hall, Keighley.

**KIDDERMINSTER.**—June 9.—For alterations to the Employment Exchange at Kidderminster, for the Commissioners of His Majesty's Works, &c. Deposit £1 1s. The Employment Exchange at Kidderminster or H.M. Office of Works, Paradise Street, Birmingham, or the Contracts Branch, H.M. Office of Works, King Charles Street, London, S.W. 1.

**LLANYBYTHYR.**—June 4.—For erection of houses on the following sites, for the Llanybyther Rural District Council: Cae-postgwyn (four houses) in the parish of Pencarreg; Glanduar (two houses) in the parish of Llanybyther; Abergiar (two houses) in the parish of Llanllwni. Deposit £2 2s. Mr. E. Ll. Lewis, architect, High Street, Lampeter.

**LONDON.**—June 3.—For erection of ten cottages at Mary Place, Notting Hill, W., for the Kensington Borough Council. Mr. A. S. Soutar, architect, 8 King William Street, Charing Cross, W.C. 2. Send application and £2 2s. deposit by June 3 to Mr. W. Chambers Leete, town clerk, Town Hall, Kensington, W. 8.

**LONDON.**—June 6.—For small extensions and alterations at the Union House, Queen's Road, Croydon, for the Guardians. Deposit £5 5s. Mr. H. Berney, architect, 33-35 High Street, Croydon.

**LONDON.**—June 10.—For (a) erection of twelve shops with thirty-six flats over, in two blocks, fronting the Central Square; and (b) twenty-eight "A3" type houses, for the Hammersmith Borough Council. Drawings can be seen at the office of Messrs. Hare & Lisle, architects, 2 Gray's Inn Square, W.C. 2, and Mr. J. Dowson, F.R.I.B.A., 9 New Square, W.C. 2, respectively. Send applications and £2 2s. deposit in each case not later than June 2 to Mr. Leslie Gordon, town clerk, Town Hall, Hammersmith, W. 6.

**LYMINGTON.**—June 15.—For erection of fourteen houses at Bath Road, for the Town Council. Tenders to be either per pair or in seven pairs. Deposit £1 1s. Mr. J. Bevir, architect, St. Thomas's Street, Lymington, Hants.

**NEATH.**—June 8.—For alterations and additions to Farm School, Ty-Segur, Neath, for the Glamorgan County Council. The County Architect's Office, Metropolitan Chambers, Neath.

**ORMSKIRK.**—June 11.—For erection and completion of thirty-two houses, being the first part of the Council's housing scheme, for the Urban District Council. Deposit £3 3s. Mr. F. C. Hill, clerk, the Council Offices, Burscough Street, Ormskirk.

**PIDDINGTON, &C., OXON.**—For carrying out repairs, alterations and additions, and the erection of gates and fences at the following farms in the County of Oxfordshire, for the Oxfordshire County Council:—Lower Farm, Piddington; Kiln Farm, Blackthorn; and Ascott Park Farm, Stadhampton (fencing and gates only). The County Land Agent, County Offices, New Road, Oxford.

**POCKLINGTON.**—For works in connection with erection of twenty houses at the following places, for the Pocklington Rural District Council:—Bolton, two; Millington, two; Stamford Bridge East, two; Fangfoss, four; Goodmannam, four; and Huggate, six. Deposit £2 2s. Mr. H. P. Maxwell, M.S.A., architect, Market Place, Pocklington.

**PONTYPRIDD.**—June 4.—For erection of a football grandstand on the Taff Vale Park, for the Taff Vale Park (Pontypridd Co., Ltd.). Deposit £3 3s. Messrs. A. O. Evans & Evans, architects, The Arcade, Pontypridd.

**ROCHDALE.**—June 6.—For erection of verandahs, &c., for the block, formerly Y.M.C.A. hut and children's hospital (Block G), and for additions to Male Block H at the Birch Hill Hospital, for the Guardians of Rochdale Union. Deposit £3 3s. Mr. H. H. Clough, M.S.A., architect, 32 Lord Street, Rochdale.

**ROSSINGTON, YORKS.**—June 22.—The West Riding Education Committee invite tenders for the following works, viz.:—Erection of new school at Rossington (plasterer's work). The West Riding Education Architect, County Hall, Wakefield.

**SHEERNESS.**—June 7.—For erection of a public convenience on a site adjacent to Bridge Road, for the Sheerness Urban District Council. The Surveyor of the Council, Trinity Road, Sheerness.

**SOUTHPORT.**—June 14.—For erection of sixteen houses at Ainsdale, Southport, for the Corporation. Contractors may tender for the whole or not less than two of the pairs of houses. All the houses are of the same type, i.e., parlour and three-bedroom type. The bills of quantities are for one pair of houses. Deposit £2 2s. Mr. A. E. Jackson, A.M.I.C.E., borough engineer, Town Hall, Southport.

**STAINES.**—June 4.—For the completion of certain houses and the re-erection of others, making a total of ninety-four houses of various types, for the Staines Urban District Council. It is the intention of the Council to erect these houses in instalments, in the first instance of thirty-four houses, and then in blocks of thirty houses, each instalment to be completed for occupation before commencing the next. The Council reserve the right to terminate the contract at the completion of any of these instalments. Deposit £2 2s. Mr. E. J. Barrett, A.M.I.C.E., Town Hall, Staines.

**STOWUPLAND, SUFFOLK.**—June 8.—For erection of six pairs of houses at Stowupland, for the East Stow Rural District Council. Deposit £3 3s. Messrs. Hunt & Coates, architects, 51 Abbeygate Street, Bury St. Edmunds, and Stowmarket.

**STROUD, GLOS.**—June 1.—For erection of forty-six houses, in pairs, on the Folly Lane site, for the Urban District Council. There are three types to be erected, and contractors may tender for the whole or any number of houses. The roads, sewers, and water mains have been laid, and the houses are all on one site. Mr. A. Murray-Smith, A.M.I.C.E., architect, Town Hall, Stroud, Glos.

**TODMORDEN.**—June 11.—For the various works required in the erection of eighty-eight houses at Royd, Todmorden, or such lesser number as may afterwards be decided upon, for the Corporation. Mr. J. A. Heap, borough Engineer, Municipal Offices, Rise Lane, Todmorden.

**WAKEFIELD.**—For the following works in connection with the renovation of the tower of St. John's Church, Wakefield:—(a) for erection of the necessary scaffolding and (b) for necessary repairs as detailed in the quantities to be issued. Messrs. Massie & Holdsworth, architects, Yorkshire Buildings, Wood Street, Wakefield.

**WOOD GREEN.**—June 7.—For execution of repairs to the several Council Schools during the summer holidays. Deposit £1 1s. Mr. C. H. Croxford, surveyor to the Local Education Authority, Town Hall, Wood Green.

## TENDERS.

### BRIXHAM.

For the erection of a ladies' lavatory, for the Urban District Council:—G. COOKSLEY, New Road, £560 (*accepted*); Hazlewood & Watson, £594; F. Potter, £595 10s. All of Brixham.

### BURSLEDON.

For the erection of sixteen houses for the South Stoneham District Council.

	Total.	Per House.
Bates & Son	£12,240	765 0 0
Hales Bros.	12,072	754 10 0
Warwick & Co.	12,064	754 0 0
Ross & Son	11,664	729 0 0
BURT & ROBERTS ( <i>accepted</i> )	11,604	725 0 0

### LONDON.

For constructional work in connection with a new boiler-house and pump-room extensions at their electricity works, for the St. Marylebone Borough Council.

F. G. Minter	£30,750	0 0
J. Mowlem & Co.	29,933	0 0
Patman & Fotheringham	29,321	0 0
A. E. Symes	27,377	0 0
A. E. SYMES ( <i>revised and accepted</i> )	23,494	15 0

### RUSKINGTON.

For erection of eight houses for the Urban District Council.

Mr. A. Tapster (Sleaford), two pairs, £3,526 1s. 6d.; group of four, £3,164 8s.; total, £6,690 9s. 6d. Messrs. Maxey & Sons (Sleaford), £3,780; £3,760; total £7,540. Mr. F. Peck (Boston), £3,440; £3,395; total, £6,835. Messrs. Wallhead Bros. (Ruskington), £3,526; £3,475; total, £7,001.



6d. buys  
the World's  
Best Pencil

**KOH-I-NOOR**

THE PERFECT PENCIL

17 degrees—  
(6B to 9H)

Writers, artists, draughtsmen—all confirm the fact that the "Koh-i-Noor" is "The Perfect Pencil." Its superiority is due to the secret process of manufacture. By this process the lead assumes a highly compressed form which not only makes each of "the famous seventeen degrees" the best for its purpose but also the most economical.

*For erasing, Hardtmuth's  
Grey Pliable Rubber is best*

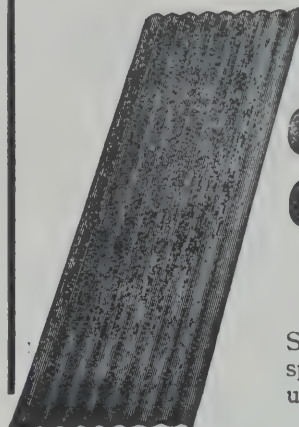
*From Stationers, etc. 6d. each, 5/3 per dozen, 54/- per gross.*

**L. & C. HARDTMUTH,**  
10 Bothwell Street, GLASGOW.

**LYSAGHT'S**  
"ORB" Brand



**GALVANIZED  
CORRUGATED  
SHEETS.**



Sheets bearing this brand are specially manufactured for use in the

**construction of  
PERMANENT BUILDINGS.**

They are given a heavy protective coating of zinc to ensure long service.

Engineers and architects can rely upon these being the finest quality obtainable.

Manufactured by  
**JOHN LYSAGHT, LIMITED,**  
BRISTOL.

## ARE YOU BUILDING?

Then, if you would avoid that highly contagious disease of wood  
(particularly the latter-day unseasoned wood)

**DRY ROT,**

**SOLIGNUM! SOLIGNUM!! SOLIGNUM!!!**

every joist, every rafter, and every floor board, and so save maybe  
hundreds, at the cost of a few pounds.

*Full particulars will be sent on application to Major & Co. Ltd., Solignum  
Depot, 305 Borough High Street, London, S.E. 1, Manufacturers of*



WOOD PRESERVING STAIN.

THERE ARE MANY WOOD PRESERVATIVES, BUT ONLY ONE "SOLIGNUM."



# THE ARCHITECT

FOUNDED 1869.

Incorporating "The Contract Reporter," 1885.  
 "The Builder's Reporter and Engineering Times."  
 "The Building Trade," 1913.

FRIDAY, JUNE 3, 1921.

Owing to the increasing demand for back numbers we are compelled to give the following notice:—

All numbers for the past twelve months 9d. each, previous to that date 1s. each.

## TENDERS, &c.

\*. As great disappointment is frequently expressed at the non-appearance of Contracts Open, Tenders, &c., it is particularly requested that information of this description be forwarded to the Office, Imperial Buildings, Ludgate Circus, London, E.C., not later than 2 P.M. on Wednesdays.

## CONTRACTS OPEN.

ABERTRIDWR.—June 13.—For erection of twenty-eight houses at Graig-y-Vedw, Abertridwr, for the Caerphilly Urban District Council. Messrs. J. H. Phillips & Wride, architects, 7 Pembroke Terrace, Cardiff.

AMMANFORD.—June 13.—For erection on the Parcyrhun site of ten houses under the Council's housing scheme, for the Ammanford Urban District Council. Deposit £2 2s. Mr. D. Thomas, architect, 33A Quay Street, Ammanford.

ARDROSSAN.—June 15.—For the following works in connection with the erection of fourteen houses at the Park-house housing site, for the Town Council: Digger and brick works; carpenter, joiner, and ironmongery works; glazier work; slater work and rough casting; plumber work and gasfittings; plaster and concrete works; and painter work. Deposit £1 1s. Mr. A. Stevenson, architect, 14 Cathcart Street, Ayr, or the Joint Town Clerks, Burgh Chambers, Ardrossan.

ATTLEBOROUGH.—June 6.—For erection of 100 houses, in one contract or in groups of 22, 24, 26 and 28 houses, and also for the construction of new streets, sewers, &c., in connection with the housing scheme, Attleborough, for the Corporation of Nuneaton. Deposit £2 2s. Mr. R. C. Moon, A.M.I.C.E., borough surveyor, Municipal Offices, Nuneaton.

BARNSELY.—June 7.—For the various trades required in erection of eight class B dwelling-houses on the Racecommon Road housing site, for the Town Council. The Borough Engineer, Manor House, Barnsley.

BIRLING.—June 8.—For erection of a cottage and set of farm buildings near Ham Hill, Birling, for the Kent Small Holdings Sub-Committee. Mr. A. Barker, county land agent, 27 High Street, Maidstone.

CHEDDAR.—June 24.—For the construction of an engine-house and other works at Cheddar, for the Bristol Waterworks Co. Deposit £3 3s. The office of the company at Telephone Avenue, Bristol, or Messrs. T. & C. Hawksley, civil engineers, 62 Broadway, Westminster, S.W.

CHORLEY.—June 15.—For erection of 112 houses on the Pilling Lane-Harrison Road site in the borough, for the Corporation. Contractors may tender for the whole or a portion of the houses (not less than one pair), and must state the date by which they will undertake to complete the houses for which they tender. The date to be fixed for the completion of any contract must be prior to July 1922. Deposit £2 2s. The Borough Surveyor's Office, Town Hall, Chorley.

CLECKHEATON.—For the various works required in erection of new picture-house, Bradford Road and Albion Street, for Messrs. Goodall's Pictures, Ltd. Messrs. Howorth & Howorth, architects, &c., Old Bank Chambers, Cleckheaton.

COVENTRY.—June 7.—For erection of a new sorting office at Coventry. Deposit £1 1s. The head post-office at Coventry, or the Contracts Branch, H.M. Office of Works, King Charles Street, London, S.W. 1.

CREWE.—June 27.—For erection of 195 houses on the Alton Street site, for the Corporation. Contractors may, if they so desire, tender for a smaller number of houses, and the above 195 houses have been allocated into portions of 18, 44, 107, and 142 houses. The houses tendered will be required to be completed by July 22, 1922. Deposit

£2 2s. Mr. L. St. G. Wilkinson, M.Sc., A.M.I.C.E., borough engineer and surveyor, Municipal Buildings, Crewe.

CROSS KEYS.—June 18.—For repairs and alterations to the Waunfawr Council School, Cross Keys, Mon., for the Monmouthshire Education Committee. The work includes the provision of Beaver board ceiling, additions and alteration to latrines, a new urinal, painting and colouring, and minor repairs to school and house. Mr. J. Bain, F.R.I.B.A., County Hall, Newport.

DOWNHAM.—June 7.—For erection of a boiler-house, with heating apparatus and additions, at St. Edmund's Church. Mr. F. R. Dye, secretary, Parochial Church Council, Old Foresters' Hall, Downham, Norfolk.

FOCHRIW.—June 17.—For erection and completion of the transformer station, Fochriw, for the Gellygaer Urban District Council. Deposit £1 1s. Mr. P. Jones Williams, architect, Council Offices, Hengoed.

FRANCE.—June 16.—For construction of twenty-three cemeteries in France for the Imperial War Graves Commission. Tender forms, Contract 1921, to Secretary (Works Department), Imperial War Graves Commission, 82 Baker Street, London, W. 1. Tender forms ready June 20. Deposit, 15 guineas, returnable.

FRIERN BARNET.—June 10.—For erection of 150 houses of various types, for the Friern Barnet Urban District Council. Contractors may tender for two or more of these houses, or the whole, and must state how many they desire to tender for in their application. Mr. F. H. Shearley, architect, 1 Featherstone Buildings, High Holborn, W.C. 2. Send £2 2s. deposit to Mr. E. Goodship, clerk, Council Offices, The Priory, Friern Barnet, N. 11.

GLOSSOP.—June 18. For taking down the present cook-house, &c., at the Poor-Law Institution and for rebuilding same, also for providing and fitting modern steam cooking apparatus therein, for the Guardians. Deposit £2 2s. Mr. C. F. V. Fenton, clerk, Poor-Law Offices, Glossop.

GREENWICH.—June 13.—For erection and completion of the following houses on portions of the Charlton housing estate, for the Greenwich Borough Council—viz.: Forty-three pairs A3 type, seventy-nine pairs B3 type, and six pairs B4 type. Deposit £2 2s. Mr. Alfred Roberts, F.R.I.B.A., architect, 92 London Street, Greenwich.

HANLEY.—June 8.—For the erection of hutting accommodation and alterations to the Employment Exchange at Hanley, Staffs, for the Commissioners of His Majesty's Works, &c. Deposit £1 1s. The Head Post Office at Hanley, or the Contracts Branch, H.M. Office of Works, King Charles Street, London, S.W. 1.

HATFIELD, NEAR DONCASTER.—June 14.—For (a) erection of ten houses on the Low Bank site, ditto fourteen houses on the Bearswood Green site, ditto thirty-six houses on the Dunscroft site (all in the parish of Hatfield); (b) construction of the necessary roads and sewers in connection therewith, for the Thorne Rural District Council. Deposit £2 2s. Messrs. F. Hopkinson & Co., Ltd., architects, Workson.

HULL.—June 13.—For erection of 130 houses, being the first section of the Cottingham Road housing scheme, for the Housing Sub-Committee. Deposit £2 2s. Mr. J. H. Hirst, city architect, Guildhall, Hull.

HULL.—June 13.—For erection of a messroom at the west end, King George Dock, for the Hull Joint Dock Committee. The Docks Superintendent, King George Dock, Hull; or Mr. A. Pollard, architect, North-Eastern Railway, York.

HUNTLY.—June 10.—For the mason, carpenter, slater, plumber, plasterer, painter, and glazier works required in connection with the erection of one block, type plan No. 1, of four houses; three blocks, type plan No. 2, of two houses; one block, type plan No. 3, of two houses, for the Town Council. Mr. T. G. Archibald, architect, Huntly.

LEEDS.—For the following trades: Mason and bricklayer, carpenter and joiner, plasterer and slater, for the erection of four houses, Type "B," Branch Place, Lower Wortley, Leeds, for Mr. S. Broughton. Messrs. G. Fredk. Bowman & Son, architects, 5 Greek Street, Leeds.

LUTON.—June 11.—For erection of twenty-four houses in Selbourne Road, on their Dunstable Road housing site, for the Town Council. The houses are in four blocks of six houses each, and the Council are prepared to consider amended tenders for the whole or for one or more blocks. Deposit £2. Mr. P. Blow, chairman of the Board of Architects, 31 King Street, Luton.

NEATH.—June 8.—For alterations and additions to Farm School, Ty-Segur, Neath, for the Glamorgan County Council. The County Architect's Office, Metropolitan Chambers, Neath.



SPECIFY  
**THE MOST EFFICIENT**

## VAUGHAN'S PURE BITUMEN DAMP-PROOF COURSES

Made from Highest-Grade Materials.  
Extensively specified for Important  
Contracts, Housing Schemes, etc.

## ROOFING FELTS

"REXOID" SELF-FINISHED BITUMEN  
ROOFING.  
"DUREX" SMOOTH, FLEXIBLE FELT FOR  
ROOFING AND SARKING.  
"DURITE" SUPERIOR BITUMEN  
UNDERSLATING, Etc.

For Samples, etc., apply to Manufacturers:

**H. R. VAUGHAN & CO. Ltd.,**  
(Dept. A) Works: GATESHEAD-ON-TYNE.  
Preston, Lancs, and Bishop Auckland.

## "HEMPSTEAD" HOLLOW PARTITION BLOCKS AND FLOOR BLOCKS

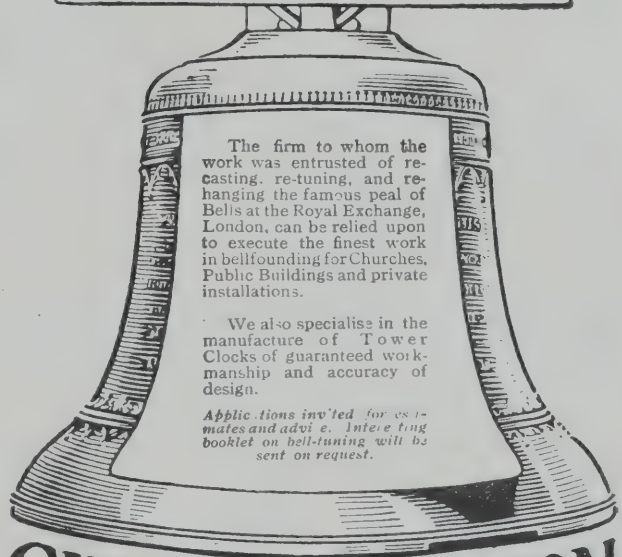
IMMEDIATE DELIVERY of STOCK SIZES.  
FLOOR BLOCKS to suit Patentee's Requirements.

Address Inquiries:

**The Hemel Hempstead Patent Brick Co. Ltd.,**  
326 GRAY'S INN ROAD, LONDON, W.C. 1.  
Telephone: MUSEUM 4588. Telegrams: "LUGGDOM," LONDON.



ROYAL EXCHANGE, LONDON, for  
which we have re-cast, re-tuned, and re-hung  
the famous peal of bells.



The firm to whom the  
work was entrusted of re-  
casting, re-tuning, and re-  
hanging the famous peal of  
Bells at the Royal Exchange,  
London, can be relied upon  
to execute the finest work  
in bellfounding for Churches,  
Public Buildings and private  
installations.

We also specialise in the  
manufacture of Tower  
Clocks of guaranteed work-  
manship and accuracy of  
design.

Applications invited for es-  
timates and advice. Interest-  
ing booklet on bell-tuning will be  
sent on request.

**GILLETT & JOHNSTON**  
CROYDON, SURREY

TELEGRAMS: "SUPPLIES, GLASGOW."

TELEPHONE: 5628 CENTRAL.

DESIGN  
No. 12.



## MACKAY'S DIRECT-ACTING VENTILATORS

AS SUPPLIED TO  
GOVERNMENT ARMY  
CAMPS · MUNITION WORKS ·  
SHELL FACTORIES · AERIAL  
SHEDS · HOSPITALS · ARMY  
& WORKS CANTEENS · ETC.

SOLE MAKERS:  
COUSLAND & MACKAY  
VENTILATING ENGINEERS  
118, 120 KENT RD., GLASGOW

MODERATE PRICES. VENTILATORS (all classes) KEPT IN STOCK.

All grades of highest quality

## WASHED SHARP SAND, SHINGLE, BALLAST.

Immediate delivery by road on site in large or small quantities.

**JOHN BENNETT,**

2 MONTSERRAT ROAD,  
PUTNEY, S.W. 15.

Telephone: PUTNEY 2047.



**NEWCASTLE EMLYN.**—For erection of a new storage battery-room, store-room, &c., at the electricity works, for the Newcastle Emlyn and District Electric Supply Co., Ltd. Mr. J. R. Parkington, engineer.

**NORTHFLEET, &c.**—June 11.—For repairing and painting the pumping station, &c., and six houses near the Lower Downs Road, Northfleet, and the pumping station, &c., and four houses near Constitution Hill, Gravesend, for the Gravesend and Milton Waterworks Co. The company's offices, 2 Berkley Crescent, Gravesend.

**ORMSKIRK.**—June 11.—For erection and completion of thirty-two houses, being the first part of the Council's housing scheme, for the Urban District Council. Deposit £3 3s. Mr. F. C. Hill, clerk, the Council Offices, Burscough Street, Ormskirk.

**OTTERY ST. MARY.**—June 13.—For erection of fourteen houses, either on one or two contracts, at Shutes, for the Ottery St. Mary Urban District Council. Mr. R. W. Sampson, Lic.R.I.B.A., architect, Manor Offices, Sidmouth.

**OXFORDSHIRE.**—For carrying out repairs, alterations, and additions, and the erection of gates and fences, at the following farms in the county of Oxfordshire, for the Oxfordshire County Council: Rock Hill Farm, Chipping Norton; Heath Farm, Wroxton; Heath Farm, Milton-under-Wychwood. The County Land Agent, County Offices, New Road, Oxford.

**PERTH.**—For the several works in connection with erection of New Alhambra Theatre. Mr. A. K. Beaton, architect, Perth.

**RETFORD.**—June 16.—For erection of a new post-office at Retford, Notts. Deposit £1 1s. The post-office at Retford and the Contracts Branch, H.M. Office of Works, King Charles Street, London, S.W. 1.

**ROSSINGTON, YORKS.**—June 22.—The West Riding Education Committee invite tenders for the following works, viz.:—Erection of new school at Rossington (plasterer's work). The West Riding Education Architect, County Hall, Wakefield.

**RUFFORD.**—June 17.—For erection of additional buildings at Rufford Hall Sanatorium, Rufford, Lancaster. Deposit £1 1s. Mr. H. Littler, county architect, 16 Ribblesdale Place, Preston, and the Contracts Branch, H.M. Office of Works, King Charles Street, London, S.W. 1.

**ST. ANNES-ON-THE-SEA.**—June 9.—For alteration of and additions to the present buildings, also erection of an operating-theatre, for the trustees of the War Memorial Hospital. Mr. H. J. Carmont, Town Hall, St. Annes-on-the-Sea, or Mr. J. Miller, architect, 15 Blythwood Square, Glasgow, by June 9.

**SEATON DELAVAL.**—June 13.—For erection of "Type B" houses in connection with their housing schemes at Seaton Delaval, New Hartley and Seaton Sluice, for the Seaton Delaval Urban District Council. Mr. Anthony Dorin, engineer and surveyor, Council Offices, Seaton Delaval.

**SOUTHPORT.**—June 14.—For erection of sixteen houses at Ainsdale, Southport, for the Corporation. Contractors may tender for the whole or not less than two of the pairs of houses. All the houses are of the same type, i.e., parlour and three-bedroom type. The bills of quantities are for one pair of houses. Deposit £2 2s. Mr. A. E. Jackson, A.M.I.C.E., borough engineer, Town Hall, Southport.

**SUNDERLAND.**—June 13.—For proposed alterations and additions to St. James's Church, Villiers Street, for the purposes of a junior technical school, for the Town Council. Deposit £3 3s. Mr. H. Craven, town clerk and clerk to Local Education Authority, Town Hall, Sunderland.

**SUNDERLAND.**—June 23.—For erection of a bathroom in the Richardson Pavilion at the Borough Sanatorium, Hylton Road, for the Corporation. The Borough Engineer, Town Hall, Sunderland.

**TODMORDEN.**—June 11.—For the various works required in the erection of eighty-eight houses at Royd, Todmorden, or such lesser number as may afterwards be decided upon, for the Corporation. Mr. J. A. Heap, borough Engineer, Municipal Offices, Rise Lane, Todmorden.

**WALSALL.**—For erection of forty houses on the Pelsall Lane site, Rushall, consisting of twenty type B and twenty type A houses, for the Walsall Rural District Council. Deposit £2 2s. Mr. G. McMichael, A.R.I.B.A., 105 Colmore Row, Birmingham.

**WANGFORD.**—June 7.—For erection of cottages in the following parishes, for the Wangford Rural District Council: Mettingham, one pair; North Cove, two pairs; Redishab, one pair; Ringsfield, one pair; St. Andrew's, two pairs; St. Cross, one pair; St. James, Two pairs; St. Margaret Ilketshall, one pair, St. Michael, one pair. Send applications and £1 1s. deposit by June 7 to Mr. A. F. Royds, architect, 2 Gray's Inn Square, London, W.C. 1.

**WELLINGTON.**—For proposed new sanitary arrangements and for alterations and additions to the existing premises at the Lawley (Wellington) Council School, for the Salop Education Committee. Mr. H. E. Wale, secretary, County Buildings, Shrewsbury.

**WOLVERHAMPTON.**—June 6.—For erection of fifty houses, in pairs, on the Oxley Estate (first instalment), for the Housing Committee. Send applications and £2 2s. deposit by June 6 to Director of Housing, Town Hall, Wolverhampton.

## TENDERS.

### CARNABY.

For the erection of fourteen houses and thirteen sets of farm buildings at Wilsthorpe Estate, Carnaby, near Bridlington, for the East Riding of Yorkshire County Council. The County Land Agent, Beverley.

J. Allison & Sons	£23,900	0	0
J. T. Levitt	22,834	6	6
C. Martin	21,213	16	6
W. Birch & Sons	20,800	0	0
Frank Spink	20,100	0	0
F. J. Whiting	19,850	0	0
H. E. Turner & Son	19,800	0	0
J. H. Thompson	19,750	0	0
J. H. Metcalf	18,662	15	6
W. Tune	16,412	0	0
J. SAWDON, Wilsthorpe (accepted)	15,952	0	0

### GOSPORT.

For the erection of new buildings for the war memorial hospital. Messrs. Young and Hall, FF.R.I.B.A., architects, 17 Southampton Street, Bloomsbury, W.C.

S. Salter	£28,185	0	0
J. Croad	26,962	0	0
F. Privett	25,487	0	0
J. HUNT, Gosport (accepted)	25,305	0	0

### LOUGHBOROUGH.

For the erection of thirty-four houses for the Housing Committee Messrs. A. E. King & Co., architects and surveyors, Loughborough.

Gray & Son	£44,144	0	0
Mould & Bowden	33,016	0	0
Johnson & Son	32,930	0	0
Messrs. Chown	32,000	0	0
Barker & Son	31,302	0	0
Corah & Son	30,817	0	0
A. Faulks	29,659	0	0
Moss & Sons	29,075	0	0
Dare & Wareing, Birmingham (recommended)	27,550	0	0
The Building Guild, Ltd., net prime cost basic price	23,970	0	0

At a meeting of the Tredegar Council last evening considerable discussion took place as to the housing scheme at Ashvale. Eventually it was decided to consider the tenders received for the second 162 houses. These tenders varied from £132,070 12s. 6d. to £162,221. The section consisted of 62 non-parlour type and 100 parlour type, each type having three bedrooms. The architect (Mr. A. F. Webb) stated that the average price per house of the 100 houses now in course of erection was £977, as against £815 for those now proposed. It was decided to recommend to the Ministry the acceptance of the tender of £132,070, sent in by the United Valleys Building Guild.

THE Leeds Improvements Committee recommend that, subject to the approval of the Housing Commissioner, tenders for the erection of houses on the Middleton estate be accepted from the following firms: Mr. Paul Rhodes (250), Messrs. J. H. Wood & Sons (48), Sir Robert McAlpine & Sons (250), and Messrs. Wm. Airey & Sons, Ltd. (400 concrete)—a total of 1,048. All these houses have to be erected by July 1922. On the Crossgates site tenders were let to the Waller Housing Corporation for the erection of 500 concrete houses; but, as a petition has been lodged for the winding-up of the company, the tender of Messrs. Wm. Airey & Sons, Ltd., of Leeds, is to be accepted for the building of 400 dwellings at prices varying from £650 to £750, according to type.



# DURESCO

WASHABLE  
WATER PAINT

*The FIRST in the Field. The FOREMOST ever since.*

FORTY Years' Experience has stamped

# DURESCO

as being the PREMIER Water Paint

Sole Manufacturers: **The Silicate Paint Co. & Co. Ltd.**  
J. B. ORR & Co. Ltd.  
CHARLTON, LONDON, S.E.



**“Bitumastic”**  
Regd Trade Mark

## Contracts

Low quotations usually receive favourable attention. Painting contractors can submit low estimates for coating all kinds of structural erections with “Bitumastic” Coloured Solutions, for the covering capacity varies from 2,000 sq. ft. to 3,500 sq. ft. (2 coats) per cwt., whilst the cost per cwt. is less than that of lead paints. Yet “Bitumastic” lasts five times as long and renders rust impossible. Black, Red, Brown, Green, and Grey colours supplied. Write to Dept. “D” for full particulars.

**WAILES DOVE BITUMASTIC LTD.,**  
Newcastle-on-Tyne, London, Glasgow, Liverpool, Leeds, Cardiff, Hull, Manchester, Birmingham, Lowestoft, Dublin, etc.  
Telephones in every office. Telegrams—“BITUMASTIC.”

## THE LONDON ELECTRIC WIRE COMPANY and SMITHS LIMITED

<p><b>The London Electric Wire Co. and Smiths LIMITED,</b> Playhouse Yard, Golden Lane, LONDON, E.C. 1</p> <p>FOR</p> <p>RUBBER INSULATED WIRES and CABLES ARMATURE and MAGNET WIRES and STRIPS ENAMEL INSULATED WIRES HIGH RESISTANCE WIRES TELEPHONE CABLES, WIRES and CORDS AERIAL CABLES FLEXIBLE LIGHTING CORDS BELL WIRES FUSE WIRES DYNAMO BRUSHES and ARC LAMP and BRUSH FLEXIBLES</p> <p>Telephone: Clerkenwell 1588 &amp; 9. Telegrams: “Electric, London.”</p>	<p><b>Frederick Smith &amp; Co.</b> (Incorporated in the London Electric Wire Co. and Smiths Limited), Anaconda Works, SALFORD, MANCHESTER</p> <p>FOR</p> <p>HIGH CONDUCTIVITY COPPER WIRE and STRIP HARD DRAWN H.C. COPPER LINE WIRE and TROLLEY WIRE SPECIAL NON-FOULING SECTIONS PHOSPHOR BRONZE SPRING WIRE BRONZE TROLLEY WIRE Maximum Tensile Strain and Durability SILICIUM BRONZE WIRE</p> <p>Telephone: Manchester Central 4640. Telegrams: “Anaconda, Manchester.”</p>
---	--

Contractors to H.M. Government and to all the leading Electric Light and Telephone Companies.

Price Lists and Special Quotations on application.

CODES: { A B C 5th Edition. BENTLEY'S, WESTERN UNION (Univ. and 5-Letter), and MARCONI



# THE ARCHITECT

FOUNDED 1869.

Incorporating "The Contract Reporter," 1885.  
"The Builder's Reporter and Engineering Times."  
"The Building Trade," 1913.

FRIDAY, JUNE 10, 1921.

*Owing to the increasing demand for back numbers we are compelled to give the following notice:—*

*All numbers for the past twelve months 9d. each, previous to that date 1s. each.*

## TENDERS, &c.

\* *As great disappointment is frequently expressed at the non-appearance of Contracts Open, Tenders, &c., it is particularly requested that information of this description be forwarded to the Office, Imperial Buildings, Ludgate Circus, London, E.C., not later than 2 P.M. on Wednesdays.*

## CONTRACTS OPEN.

ALMONDBURY, YORKS.—June 14.—For any of the various works required in the conversion of existing premises, Almondbury, into café and confectioner's shop, for Mr. J. C. Duce. Send name and address by June 14 to Messrs. H. Hall and Son, architects and surveyors, Market Street, Huddersfield.

ARDROSSAN.—June 15.—For the following works in connection with the erection of fourteen houses at the Park-house housing site, for the Town Council: Digger and brick works; carpenter, joiner, and ironmongery works; glazier work; slater work and rough casting; plumber work and gasfittings; plaster and concrete works; and painter work. Deposit £1 1s. Mr. A. Stevenson, architect, 14 Cathcart Street, Ayr, or the Joint Town Clerks, Burgh Chambers, Ardrossan.

BARROW-IN-FURNESS.—June 21.—For erection of shell-shop sub-station, for the Corporation. The Borough Engineer's Office, Town Hall, Barrow-in-Furness.

BAWTRY.—June 18.—For erection of ninety-three houses at Bawtry and laying out roads, &c., in connection with the housing scheme, for the Doncaster Rural District Council: 22 houses of type A in pairs; 24 houses of type A in blocks of 4; 6 houses of type A in blocks of 3; 28 houses of type B in pairs; 3 houses of type B in one block; 4 houses of type B4 in pairs; 6 houses of type B4 in blocks of 3. Deposit £2 2s. Messrs. Walker & Thompson, architects and surveyors, Oriel Chambers (No. 1 Baxter Gate), Doncaster.

BELPER.—June 18.—For erection of seven pairs of houses on the Marsh Lane site, including main drains and footpaths, for the Belper Urban District Council. Deposit £2 2s. Lieut.-Col. M. Hunter, O.B.E., A.M.I.C.E., F.S.A., architect, Belper.

BLACKPOOL.—June 18.—Tenders are invited alternatively for (1) supply and erection complete; (2) supply only of manufactured work of about 50 tons of steelwork, &c., in the steel framing of two sheds at the Corporation Rigby Road depôt. Mr. F. Wood, M.I.C.E., borough engineer and surveyor, Municipal Offices, Town Hall Street, Blackpool.

BOOTLE.—June 17.—For stripping and re-slating the roofs of Nos. 51 and 53 Balliol Road, for the Education Committee. The Borough Surveyor's Office, Town Hall, Bootle.

CARDIGAN.—June 18.—For erection and completion of four houses on the following sites, for the Cardigan Rural District Council: Parish of Verwick, two houses; parish of Llechryd, two houses. Mr. J. T. J. Williams, architect and surveyor, 10 Pendre, Cardigan.

CHATHAM.—June 23.—For erection in the borough of a memorial cross in Cornish granite, for the Town Council. Mr. R. L. Honey, F.S.I., borough surveyor, Town Hall, Chatham.

CHEDDAR.—June 24.—For the construction of an engine-house and other works at Cheddar, for the Bristol Waterworks Co. Deposit £3 3s. The office of the company at Telephone Avenue, Bristol, or Messrs. T. & C. Hawksley, civil engineers, 62 Broadway, Westminster, S.W.

CREWE.—June 27.—For erection of 195 houses on the Alton Street site, for the Corporation. Contractors may, if they so desire, tender for a smaller number of houses, and the above 195 houses have been allocated into portions of 18, 44, 107, and 142 houses. The houses tendered will be required to be completed by July 22, 1922. Deposit £2 2s. Mr. L. St. G. Wilkinson, M.Sc., A.M.I.C.E., borough engineer and surveyor, Municipal Buildings, Crewe.

CROSS KEYS.—June 18.—For repairs and alterations to the Waunfawr Council School, Cross Keys, Mon., for the Monmouthshire Education Committee. The work includes the provision of Beaver board ceiling, additions and alteration to latrines, a new urinal, painting and colouring, and minor repairs to school and house. Mr. J. Bain, F.R.I.B.A., County Hall, Newport.

DEVONPORT.—June 16.—For alterations and repairs to 37 St. Aubyn Street, for the Plymouth Town Council. Mr. T. Peirson Frank, borough engineer and surveyor, Municipal Offices, Plymouth.

EDINBURGH.—June 20.—For the following works in connection with the extension of Leith Depôt: (1) Excavator, mason, and brick works; (2) carpenter and joiner work; (3) plumber work; (4) slater work; (5) patent glazing work; (6) concrete floors work. Mr. J. A. Williamson, A.R.I.B.A., city architect, Public Works Office, City Chambers, Edinburgh.

FILLONGLEY.—For erection of farm buildings and alterations and additions to two existing houses on the Mission Hall Farm Estate, near Fillongley, for the Warwickshire County Council. Mr. A. C. Bunch, F.R.I.B.A., county architect, 27 Binswood Avenue, Leamington Spa.

FOCHRIW.—June 17.—For erection and completion of the transformer station, Fochriw, for the Gellygaer Urban District Council. Deposit £1 1s. Mr. P. Jones Williams, architect, Council Offices, Hengoed.

FRANCE.—June 16.—For construction of twenty-three cemeteries in France for the Imperial War Graves Commission. Tender forms, Contract 1921, to Secretary (Works Department), Imperial War Graves Commission, 82 Baker Street, London, W. 1. Tender forms ready June 20. Deposit, 15 guineas, returnable.

GLENCRAIG, FIFE.—June 20.—For the excavator and brickwork, carpenter and joiner, plumber, plaster, slater, glazier and painter works of types "E," "F," and "G"—sixty houses in all—proposed to be erected at Glencraig site, Lochore, for the Kirkcaldy District Committee of the Fife County Council. Deposit £1 1s. Messrs. William Williamson, F.R.I.B.A., and G. B. Deas, joint architects, Royal Bank Buildings, Kirkcaldy.

GLOSSOP.—June 18. For taking down the present cook-house, &c., at the Poor-Law Institution and for rebuilding same, also for providing and fitting modern steam cooking apparatus therein, for the Guardians. Deposit £2 2s. Mr. C. F. V. Fenton, clerk, Poor-Law Offices, Glossop.

GOBOWEN.—June 15.—For erection of the Gobowen war memorial. Mr. H. P. Jones, architect, Wrekin House, Gobowen, Salop.

GOSFORTH.—June 22.—For structural work required in connection with the installation of a pulverising plant for house refuse at the Council's North Depôt, Regent Pit, together with deposit shed and approach road. Mr. Nelson, A.M.I.C.E., engineer and surveyor, Council Chambers, Gosforth.

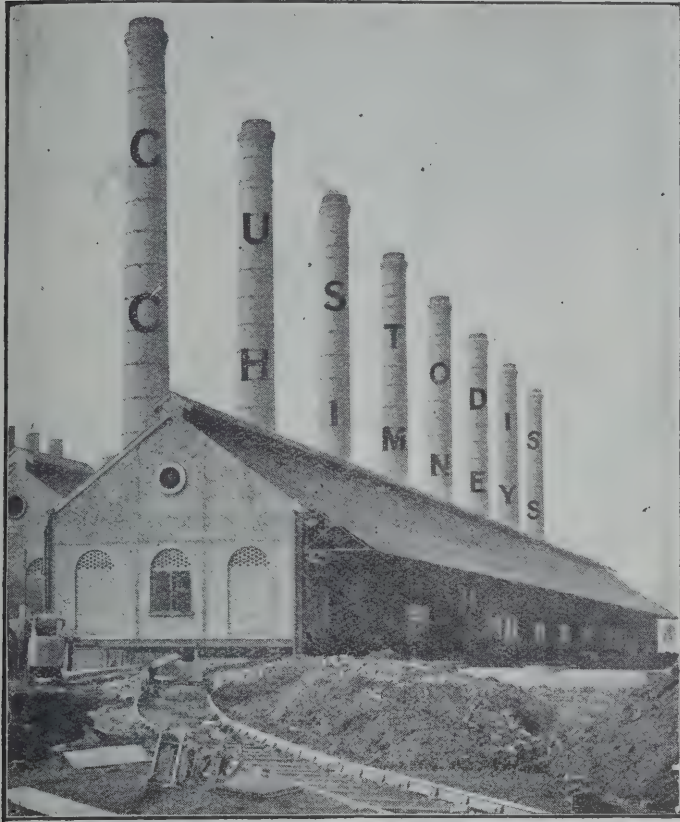
HALE.—June 15.—For erecting and completion of twelve houses in pairs and for the construction of road and sewer work on the site at Halebarns (1½ miles from Hales Station), for the Hale Urban District Council. Tenders may be for four, eight, or twelve houses. Send applications and £1 1s. deposit by June 15 to Mr. J. G. Whyatt, clerk, Council Offices, Hale, Cheshire.

HATFIELD, NEAR DONCASTER.—June 14.—For (a) erection of ten houses on the Low Bank site, ditto fourteen houses on the Bearswood Green site, ditto thirty-six houses on the Dunscroft site (all in the parish of Hatfield); (b) construction of the necessary roads and sewers in connection therewith, for the Thorne Rural District Council. Deposit £2 2s. Messrs. F. Hopkinson & Co., Ltd., architects, Workson.

HENDON.—June 27.—For erection of fifty houses at Bittacy Hill, Mill Hill, N.W. 7, for the Hendon Urban District Council. Deposit £10 10s. Mr. A. O. Knight, A.M.I.C.E., engineer and surveyor, Town Hall, Hendon, N.W. 4.

HOWDEN.—June 24.—For erection of three pairs of parlour houses at North Cave, for the Howden Rural District Council. Deposit £1 1s. Mr. S. Paper, architect, Market Place, Howden.





EIGHT CHIMNEYS RECENTLY BUILT BY CUSTODIS, LTD.

Enquiries invited.

CUSTODIS, LTD.,

TELEGRAMS—Custodomus Sowest.  
PHONE—779 Victoria.

119 Victoria Street,  
WESTMINSTER, S.W.1.

## BEAUDEXOL

SUPER WATER PAINT  
IN 40 STANDARD SHADES

Other Reasons  
for Specifying.

IT IS

**B**eautiful  
**E**verlasting  
**A**rtistic  
**U**niform in shade  
**D**urable  
**E**conomical  
**X**cellently bound  
**O**bliterating  
**L**ustrous

**BROWN & CRITCHLEY, LTD.,**  
**LENZIE, SCOTLAND.**

Telegrams: Walpa, Lenzie.

Telephone: Kirkintilloch 51.

### WHY BUY FOREIGN PENCILS?

WOLFF'S

**Royal Sovereign**

PENCILS ARE BRITISH MADE

The finest Pencil in the World for Architects, Draughtsmen, and General use because of its smoothness and great durability. Made in all degrees by THE ROYAL SOVEREIGN PENCIL CO. LTD., Falcon Pencil Works, Battersea, S.W. Famous over 100 years. By appointment to H.M. the King. Price 6d. each. Sold by all Stationers.

## HEATING

AND HOT  
WATER  
SUPPLIES.

FOR EVERY DESCRIPTION OF BUILD-  
ING, OFFICES, FACTORIES, &c. &c.

**CHAS. P. KINNELL & CO., LTD.,**  
65, Southwark Street, London, S.E. 1

## VENTILATION

EXPERT ADVICE & ESTIMATES FREE

All grades of highest quality

**WASHED SHARP SAND,**  
**SHINGLE, BALLAST.**

Immediate delivery by road on site in large or small quantities.

**JOHN BENNETT,**

**2 MONTSERRAT ROAD,**  
**PUTNEY, S.W. 15.**

Telephone: PUTNEY 2047.

**LISKEARD.**—June 14.—For erection of thirty-two houses on Castle Park site, also for requisite road and sewerage work in connection therewith. Tenders should be separate. Tenders for houses will be accepted for the whole or any portion in pairs. Messrs. C. Truscott and Parkes-Lees, architects, Pensilva, Liskeard, or Fowey.

**LLANERCH.**—June 20.—For erection of 202 houses at Llanerch, Llanelly, for the Corporation of Llanelly. Bills of quantities may be obtained from the Borough Surveyor. The contract will be let as a whole or in sections, in accordance with the decision of the Housing Committee. Contractors may tender for any number of houses. All contracts have to be completed on or before July 31, 1922. Contractors must state on their tenders the number of houses they undertake to complete before above-mentioned date. Deposit £2 2s. The Borough Surveyor's Office, Town Hall, Llanelly.

**LOCHORE, FIFE.**—June 20.—For the excavator and brickwork, carpenter and joiner, plumber, plasterer, slater, glazier and painter works of types A, B, D, and E, twenty-eight houses in all, proposed to be erected at Lochore site, for the Kirkcaldy District Committee of the Fife County Council. Deposit £1 1s. Messrs. William Williamson, F.R.I.B.A., and G. B. Deas, architects, Royal Bank Buildings, Kirkcaldy.

**LONDON.**—June 16.—For sundry painting work and repairs at the Southfield Road Council school; also for repairs to the tar paving at Beaumont Park and South Acton girls' and infants' school, and for erection of a temporary classroom in the playground at Southfield Road Council school, for the Acton Urban District Education Committee. The engineer and surveyor, Council Offices, Acton, W. 3.

**LONDON.**—June 22.—The Metropolitan Asylums Board invite separate tenders for (1) T.S. "Exmouth" Infirmary, Westfield House, Grays, Essex, for the erection of two huts; (2) High Wood, Brentwood, Essex, for erection of a hut and certain alterations; (3) Millfield, Rustington, near Littlehampton, Sussex, for certain alterations; (4) Charing Cross, S.W., for erection of a hut for night office; (5) North-Western Fever Hospital, Lawn Road, Hampstead, for general repairs. Deposit £1 for each work. Mr. T. Cooper, M.Inst.C.E., M.I.Mech.E., Engineer-in-Chief, the office of the Board, Embankment, E.C. 4.

**LYMINGTON.**—June 15.—The Town Council invite alternative tenders for erection of fourteen houses at per pair, or in seven pairs, at Bath Road. Deposit £1 1s. Mr. J. Bevir, architect, St. Thomas' Street, Lymington, Hants.

**MENAI BRIDGE.**—June 20.—For erection of workmen's dwellings from plans prepared by Mr. J. Owen, F.R.I.B.A., Menai Bridge, as follows, for the Anglesey (East) Joint Housing Board: Parish of Llanggoed (Cae'r Eglwys), 8 houses; parish of Llandegfan (Bachau), 16 houses; parish of Llanidan (Gegin Ddu), 12 houses; parish of Rhodogeidio (Llanerchymedd), 22 houses; also a separate tender for 12 houses in case 22 houses are not proceeded with. The Board's Office, 12 High Street, Menai Bridge.

**RETFORD.**—June 16.—For erection of a new post-office at Retford, Notts. Deposit £1 1s. The post-office at Retford and the Contracts Branch, H.M. Office of Works, King Charles Street, London, S.W. 1.

**ROSSINGTON, YORKS.**—June 22.—The West Riding Education Committee invite tenders for the following works, viz.:—Erection of new school at Rossington (plasterer's work). The West Riding Education Architect, County Hall, Wakefield.

**RUFFORD.**—June 17.—For erection of additional buildings at Rufford Hall Sanatorium, Rufford, Lancaster. Deposit £1 1s. Mr. H. Littler, county architect, 16 Ribblesdale Place, Preston, and the Contracts Branch, H.M. Office of Works, King Charles Street, London, S.W. 1.

**SADDLEWORTH.**—For the whole or any of the trades required in the erection of thirty houses, Heathfields, Upper-mill, thirty houses, Horsforth, Greenfield, four houses, Delph Barn, for the Saddleworth Urban District Council. £1 1s. deposit. Messrs. Matley & Mills, architects, Court Chambers, Old Millgate, Manchester.

**SHEFFIELD.**—June 18.—For supply of materials and works required in connection with alterations to existing foundations of No. 3 Turbo-Generator set at Neepsend Generating Station (Contract No. 295), for the Sheffield Corporation. Deposit £2 2s. Mr. S. E. Fedden, general manager and engineer, Commercial Street, Sheffield.

**WHITBY.**—June 13.—For erection of types A and B cottages in pairs on the Gallows Close site, for the Urban District Council. Send applications by June 13 to Mr. A. E. Young, architect, Council Offices, Flowergate, Whitby.

**YORKSHIRE.**—For repairs and renovations at the following Council schools during the summer holidays, for the West Riding County Council Education Department, viz.: Kiveton Park, Dinnington, Laughton, N. and S. Anston, Woodhouse, Woodhouse West, Gleadless, Intake, Brinsworth, Catcliffe, Dalton, Thrybergh, and external treatment of the huts at Thurcroft, Dinnington, and Maltby. Mr. S. Abson, divisional clerk, Education Office, Woodhouse, Sheffield.

## TENDERS.

### CRAYFORD.

For erection of houses, for the Crayford Urban District Council. Mr. W. F. Bickford, surveyor.

Contract No. 1.—44 Parlour and Four Non-Parlour Type.

Kearley, Ltd.	£90,697	0	0
Trollope & Colls	52,936	0	0
Griggs & Son	50,526	0	0
W. Moss & Sons	50,119	4	2
Thomas & Edge	49,532	0	0
W. F. Blay, Ltd.	49,254	0	0
Miskin & Sons	48,655	0	0
R. Ward & Co.	48,240	0	0
G. H. Gunning	47,848	0	0
J. W. Ellingham	47,841	0	0
Gazes	46,891	0	0
Gay & Co.†	45,156	0	0
W. Pattinson & Sons	45,119	0	0
Herbert Nichols, Ltd.	44,139	0	0
A. L. & H. W. Chown*	43,080	0	0

Contract No. 2.—40 Parlour and 10 Non-Parlour Type.

Kearley, Ltd.	£97,632	0	0
Friday & Son	56,212	18	0
Trollope & Colls	54,676	0	0
Griggs & Son	53,551	10	0
W. Moss & Sons	52,576	0	0
Thomas and Edge	52,194	0	0
W. F. Blay, Ltd.	51,514	0	0
J. W. Ellingham	50,743	0	0
Miskin & Sons	50,380	0	0
Walter Jones & Son	48,894	17	4
Charles Groom & Son	48,428	0	0
W. Pattinson & Sons	47,913	0	0
Gay & Co.†	47,015	14	0
Herbert Nichols, Ltd.	46,491	0	0
A. L. & H. W. Chown*	45,490	0	0
Chandler	43,283	0	0

Contract No. 3.—30 Parlour and 26 Non-Parlour Type.

Kearley, Ltd.	£117,712	0	0
D. H. Ebbutt	61,070	0	0
Unit Construction Co.	60,094	0	0
Griggs & Son	57,561	5	0
W. Moss & Sons	56,719	9	8
W. F. Blay, Ltd.	56,587	0	0
Thomas & Edge	56,044	0	0
Miskin & Sons	55,088	0	0
J. W. Ellingham	54,836	0	0
Trollope & Colls	54,676	0	0
Walter Jones & Son	52,509	18	1
W. Pattinson & Sons	51,847	0	0
Gay & Co.†	51,416	6	0
Herbert Nichols, Ltd.	50,039	0	0
Somerville & Co.	48,908	0	0
A. L. & H. W. Chown*	48,890	0	0
H. Farrow, for whole number of houses	169,260	0	0

\* Provisionally accepted subject to the Ministry's approval. † Less 2½ per cent. if whole tender accepted.

### OAKHAM.

For the erection of ten houses in Station Road, Oakham, for the Town Council. Mr. G. C. Wooldridge, surveyor, Oakham.

Bowles & Son	£8,166	0	0
E. J. W. Wilson	8,148	0	0
A. Tate	7,990	0	0
"Interloc" Construction Co.	7,560	0	0
J. Simpson	7,488	0	0
J. Hibbitt	7,280	0	0
Graham-Denney, Ltd.	7,159	0	0
B. Cole	8,057	0	0
Clarke & Belton	8,012	0	0
Higgs & Sons, Oakham (accepted provisionally)	6,730	0	0



**ARTHUR FOULDS**  
LIMITED.*Joinery Manufacturers.*

High-Class Work at Competitive Prices.

SPENCER WORKS, HARBUT RD.,  
ST. JOHN'S HILL, S.W. 11.

Telephone: BATTERSEA 2268

**LYSAGHT'S**  
"ORB" Brand**GALVANIZED  
CORRUGATED  
SHEETS.**Sheets bearing this brand are  
specially manufactured for  
use in the**construction of  
PERMANENT BUILDINGS.**They are given a heavy protective coating of zinc  
to ensure long service.Engineers and architects can rely upon these  
being the finest quality obtainable.

Manufactured by

**JOHN LYSAGHT, LIMITED,**  
BRISTOL.**ARE YOU BUILDING?****Then, if you would avoid that highly contagious disease of wood**  
*(particularly the latter-day unseasoned wood)***DRY ROT,****SOLIGNUM! SOLIGNUM!! SOLIGNUM!!!****every joist, every rafter, and every floor board, and so save maybe  
hundreds, at the cost of a few pounds.***Full particulars will be sent on application to Major & Co. Ltd., Solignum  
Depot, 305 Borough High Street, London, S.E. 1, Manufacturers of***WOOD PRESERVING STAIN.****THERE ARE MANY WOOD PRESERVATIVES, BUT ONLY ONE "SOLIGNUM."**

# THE ARCHITECT

FOUNDED 1869.

Incorporating "The Contract Reporter," 1885.  
 "The Builder's Reporter and Engineering Times,"  
 "The Building Trade," 1913.

FRIDAY, JUNE 17, 1921.

*Owing to the increasing demand for back numbers we are compelled to give the following notice:—*

*All numbers for the past twelve months 9d. each, previous to that date 1s. each.*

## TENDERS, &c.

*As great disappointment is frequently expressed at the non-appearance of Contracts Open, Tenders, &c., it is particularly requested that information of this description be forwarded to the Office, Imperial Buildings, Ludgate Circus, London, E.C., not later than 2 P.M. on Wednesdays.*

## CONTRACTS OPEN.

**ABERDARE.**—June 23.—For alterations Cambrian Hotel, Aberdare. Plans and specifications at Hotel or offices of Messrs. T. Roderick & Sons, architects, Clifton Street, Aberdare, where bills of quantities may be obtained. Enclosed tenders to Mr. G. L. Pares, The Brewery, Rhymney, Mon., by above date.

**BARROW-IN-FURNESS.**—June 21.—For erection of shell-shop sub-station, for the Corporation. The Borough Engineer's Office, Town Hall, Barrow-in-Furness.

**BLYTH.**—For proposed extension of the Thomas Knight Memorial Hospital. Mr. G. Beatty, M.I.M.E., Greenholme, Ashington.

**BRETORTON, WORCESTER.**—July 4.—For general repairs, external and internal painting, at following Council schools, for the Worcestershire Education Committee: Evesham district; Bretforton, Malvern district; Malvern Link, Redditch district; Crabbs Cross and Astwood Bank. Persons desirous of tendering for any of this work must forward their names to Mr. A. V. Rowe, architect, 38 Foregate Street, Worcester, by June 20, after which date particulars will be forwarded.

**CHATHAM.**—June 23.—For erection in the borough of a memorial cross in Cornish granite, for the Town Council. Mr. R. L. Honey, F.S.I., borough surveyor, Town Hall, Chatham.

**CHEDDAR.**—June 24.—For the construction of an engine-house and other works at Cheddar, for the Bristol Waterworks Co. Deposit £3 3s. The office of the company at Telephone Avenue, Bristol, or Messrs. T. & C. Hawksley, civil engineers, 62 Broadway, Westminster, S.W.

**CREWE.**—June 27.—For erection of 195 houses on the Alton Street site, for the Corporation. Contractors may, if they so desire, tender for a smaller number of houses, and the above 195 houses have been allocated into portions of 18, 44, 107, and 142 houses. The houses tendered will be required to be completed by July 22, 1922. Deposit £2 2s. Mr. L. St. G. Wilkinson, M.Sc., A.M.I.C.E., borough engineer and surveyor, Municipal Buildings, Crewe.

**FAILSWORTH.**—July 2.—For erection and completion of 100 brick houses at Lord Lane, Failsworth, first portion of Council's housing scheme, comprising twenty blocks of two and fifteen blocks of four, all parlour type, with three bedrooms, together with drains, paths, fencing, &c., for the Failsworth Urban District Council. Contractors may tender for a portion (not less than one pair) or for the whole. Successful contractor must contract for completion of houses at dates to be specified, but not later than July 1922. Bills of quantities and forms of tender after June 20 on application, with deposit of £2 2s., at Clerk's Dept., Town Hall, Failsworth. Drawings and forms of contract may be inspected at offices of architect, Mr. G. H. Fletcher, L.R.I.B.A., 26 Corporation Street, Manchester.

**FARNDON.**—June 25.—For erection of the Farnndon War Memorial Hall. Plan and specification on application. Tenders by above date to Mr. E. W. Ince, Secretary, Farnndon, Chester.

**GOSFORTH.**—June 22.—For structural work required in connection with the installation of a pulverising plant for

house refuse at the Council's North Dépôt, Regent Pit, together with deposit shed and approach road. Mr. Nelson, A.M.I.C.E., engineer and surveyor, Council Chambers, Gosforth.

**HENDON.**—June 27.—For erection of fifty houses at Bittacy Hill, Mill Hill, N.W. 7, for the Hendon Urban District Council. Deposit £10 10s. Mr. A. O. Knight, A.M.I.C.E., engineer and surveyor, Town Hall, Hendon, N.W. 4.

**HOLSWORTHY, DEVON.**—June 27.—For erection and completion of sixty-eight houses in the parishes of Bridgerule, North Tamerton, Clawton, Tetcott, Ashwater, Halwill, Black Torrington, Bradford, Cookbury, Thornbury, Milton Damerell, West Putford, Pancrassweek, and Holsworthy Hamlets, for the Holsworthy Rural District Council. Contractors are invited to tender in sections, in pairs, or whole blocks, and to state the number of houses they are prepared to contract for at the tender price. Deposit £2 2s. Mr. M. V. Treleven, M.S.A., F.I.A., architect, Bude, Cornwall, and at the Council Offices, Station Road, Holsworthy.

**HOWDEN.**—June 24.—For erection of three pairs of parlour houses at North Cave, for the Howden Rural District Council. Deposit £1 1s. Mr. S. Paper, architect, Market Place, Howden.

**KIRK SANDALL, YORKS.**—June 22.—The West Riding Education Committee invite tenders for the following works at the Kirk Sandall temporary Council school: (1) installation of electric light and (2) erection of folding partition. The West Riding Education Architect, County Hall, Wakefield.

**KNOTTINGLEY.**—June 27.—For pulling down of certain properties and building of a new hotel in Gillygate, Pontefract, for Messrs. Carter's Brewery Company, Knottingley. Send names to Mr. W. J. Tennant, architect and surveyor, Pontefract, by June 27. Deposit £2 2s., returned on receipt of a bona-fide tender.

**LANGHAM, &c., ESSEX.**—June 28.—For erection of houses at Langham, four; Boxted, four; Little Tey, four; and Wormingford, four; for the Lexden and Winstree Rural District Council. Deposit £2 2s. The Housing Office, Bank Chambers, High Street, Colchester.

**LLANERCH.**—June 20.—For erection of 202 houses at Llanerch, Llanelly, for the Corporation of Llanelly. Bills of quantities may be obtained from the Borough Surveyor. The contract will be let as a whole or in sections, in accordance with the decision of the Housing Committee. Contractors may tender for any number of houses. All contracts have to be completed on or before July 31, 1922. Contractors must state on their tenders the number of houses they undertake to complete before above-mentioned date. Deposit £2 2s. The Borough Surveyor's Office, Town Hall, Llanelly.

**LOCHORE, FIFE.**—June 20.—For the excavator and brickwork, carpenter and joiner, plumber, plasterer, slater, glazier and painter works of types A, B, D, and E, twenty-eight houses in all, proposed to be erected at Lochore site, for the Kirkcaldy District Committee of the Fife County Council. Deposit £1 1s. Messrs. William Williamson, F.R.I.B.A., and G. B. Deas, architects, Royal Bank Buildings, Kirkcaldy.

**LONDON.**—June 22.—The Metropolitan Asylums Board invite separate tenders for (1) T.S. "Exmouth" Infirmary, Westfield House, Grays, Essex, for the erection of two huts; (2) High Wood, Brentwood, Essex, for erection of a hut and certain alterations; (3) Millfield, Rustington, near Littlehampton, Sussex, for certain alterations; (4) Charing Cross, S.W., for erection of a hut for night office; (5) North-Western Fever Hospital, Lawn Road, Hampstead, for general repairs. Deposit £1 for each work. Mr. T. Cooper, M.Inst.C.E., M.I.Mech.E., Engineer-in-Chief, the office of the Board, Embankment, E.C. 4.

**LONDON.**—June 23.—For execution of re-decoration work and general repairs, &c., at their infirmary, Raine Street, E. 1, for the Guardians of St. George-in-the-East, London. Specification and forms of tender obtained upon application to Mr. R. M. Lochner, clerk, Guardians' Offices, Raine Street, Old Gravel Lane, E. 1.

**MIDDLESBROUGH.**—For erection of 300 houses at Garden Colony, Marton Grove, for the Housing Committee of the Corporation. Contractors desirous of tendering may do so for any multiple of four, or the whole 300. Alternative tenders are asked for as follows: 300 B type (parlour, three bedrooms), 300 A type (non-parlour, three bedrooms), 300 D type (non-parlour, two bedrooms). Mr. S. E. Burgess, M.I.C.E., borough engineer and surveyor, Municipal Buildings, Middlesbrough. Mr. P. Kitchen, town clerk, Municipal Buildings, Middlesbrough by June 30.



SPECIFY  
**THE MOST EFFICIENT**

## VAUGHAN'S PURE BITUMEN DAMP-PROOF COURSES

Made from Highest-Grade Materials.  
Extensively specified for Important  
Contracts, Housing Schemes, etc.

## ROOFING FELTS

**"REXOID"** SELF-FINISHED BITUMEN  
ROOFING.

**"DUREX"** SMOOTH, FLEXIBLE FELT FOR  
ROOFING AND SARKING.

**"DURITE"** SUPERIOR BITUMEN  
UNDERSLATING, Etc.

For Samples, etc., apply to Manufacturers :

**H. R. VAUGHAN & CO. Ltd.,**

(Dept. A) Works : GATESHEAD-ON-TYNE.

Preston, Lancs, and Bishop Auckland.

## LLOYDS BANK LIMITED.



Chairman :  
Sir RICHARD V. VASSAR-SMITH, Bart.

Deputy-Chairman :  
J. W. BEAUMONT PEASE.

HEAD OFFICE : 71, LOMBARD ST., E.C. 3.

COLONIAL AND FOREIGN DEPARTMENTS :

17, CORNHILL, E.C. 3,

And at BIRMINGHAM, BRADFORD, LIVERPOOL, MANCHESTER,  
NEWCASTLE-ON-TYNE.

Foreign Bills and Cheques are  
collected, and approved Bills  
purchased. Letters of Credit and  
Circular Notes are issued, and  
Foreign Currency Drafts, Tele-  
graphic Transfers, and Letter  
Payments, available in all parts  
of the world, can be obtained from  
the principal Branches.

The Agency of Colonial and Foreign Banks is  
undertaken.



## "BASECO" PATENT BOILER.

The finest Boiler made for Domestic Hot Water  
Supply and for Hot Water Heating with Radiators.

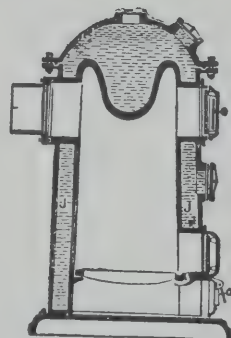
**ABSOLUTELY UNEQUALLED FOR EFFICIENCY  
AND ECONOMY.**

BURNS COAL, COKE, ANTHRACITE AND HOUSEHOLD REFUSE.

**British Invention and Manufacture.**

Through all Heating and Hot Water Engineers and Builders' Merchants.

Patentees : O. BRUSTER & DE LAUNOIT, 4 Lloyd's Avenue,  
Succrs. to H. C. ROBOTOM & CO. LONDON, E.C.3.



Section  
showing Water Pocket.

All grades of highest quality

## WASHED SHARP SAND, SHINGLE, BALLAST.

Immediate delivery by road on site in large or small quantities.

**JOHN BENNETT,**

**2 MONTSERRAT ROAD,  
PUTNEY, S.W. 15.**

Telephone: PUTNEY 2047.



OLDHAM.—July 4.—For erection of a new sorting-office at Oldham, for His Majesty's Works, &c. Deposit £1 1s. The District Surveyor, H.M. Office of Works, New Bridge Street, Manchester, or the Contracts Branch, H.M. Office of Works, King Charles Street, London, S.W. 1.

PENYBONT.—June 24.—The Penybont Rural District Council invite tenders for:—(a) The construction of a road and sewer at Pencoe; (b) the construction of a retaining wall at Pencoe; (c) the erection of fifty houses at Pencoe; (d) the erection of twelve houses at St. Bride's Major; in connection with their housing schemes at these places. Deposit £3 3s. for each contract. Mr. J. Simon Davies, F.S.I., surveyor, Penybont Offices, Quarella Road, Bridgend.

PERCY MAIN.—June 27.—For re-building engine-shed and workshop, after fire, for the North-Eastern Railway Co. Mr. A. Pollard, the Company's architect, Irving House, Westgate Road, Newcastle.

PRESTON.—July 9.—For alterations and additions to the Rufford Sanatorium, for the Lancashire County Council. Plans may be seen and bills of quantities obtained at offices of County Architect, Mr. H. Littler, 16 Ribblesdale Place, Preston, on payment of £2, returnable on receipt of bona-fide tender. Tender to be delivered before twelve noon on July 9, sealed and endorsed, to architect at above address.

PORTSMOUTH.—June 27.—The War Memorial Building Sub-Committee invite separate tenders for the following works at the Royal Portsmouth Hospital: (1) Pulling down old buildings and erecting a new archway and entrance from Commercial Road; (2) for carrying out extensive alterations and additions to the administrative buildings; (3) for a new corridor and small isolation ward. Deposit £2 2s. Mr. A. E. Cogswell, architect, 25 Prudential Buildings, Portsmouth.

ROSSINGTON, YORKS.—June 22.—The West Riding Education Committee invite tenders for the following works, viz.:—Erection of new school at Rossington (plasterer's work). The West Riding Education Architect, County Hall, Wakefield.

WEST HARTLEPOOL.—June 27.—For alterations and additions to the received goods warehouse at West Hartlepool, for the North-Eastern Railway Co. Plans and specification seen on application at Stationmaster's Office, West Hartlepool, and quantities and further information obtained from Mr. Arthur Pollard, the company's architect, at York.

WILTS.—June 30.—For carrying out works in repairs and renovations, &c., at the following Council schools during the summer vacation, 1921, for the General Education Committee of the Wilts County Council, in accordance with specifications prepared by the County Architect: Atworth; Bromham; Bremhill, East Tytherton; Brinkworth; Chippenham, Ivy Lane; Chippenham Westmead mixed and infants; Corsham Pickwick; Corsham Methuen; Corsham Neston; Corsham boys and infants; Castle Combe; Downton; Donhead St. Mary; Donhead Ludwell; Durrington infants; Edington and East Coulston; Great Cheverell; Highworth mixed and infants; Idmiston; Luckington; Milton Lilbourne; Melksham Lowbourne; Pewsey mixed and infants; Purton; Pewsey cookery; Rodbourne Cheney; Rodbourne Cheney Hayden; Ramsbury; Ramsbury Axford; Stratton St. Margaret; Upper and Lower Stratton boys and girls and infants; Shalbourne Oxenwood; Trowbridge Newtown; Trowbridge Adcroft boys and girls and Margaret Stancombe; Wanborough; Wroughton girls and infants; Wootton Bassett; Westwood-with-Iford; West Dean and Warminster boys, girls, and infants Council schools. Mr. T. Walker, A.R.I.B.A., county architect, Trowbridge.

WOMBWELL.—June 27.—For erection of 386 houses on a site situate in King's Road, for the Urban District Council. Deposit £2. Mr. D. H. Roberts, M.S.A., architect, Park Street, Wombwell, Yorks.

WORTHING.—July 14.—For erection in brick and concrete blocks of sixty-eight houses in blocks of four of three different types on South Farm Road site, for the Corporation: Type A, 24 houses in six blocks; type B, 12 houses in three blocks; type B1, 32 houses in eight blocks. Contractors may tender for all or any types. Bills of quantities and forms of tender forwarded on or about July 4 to be obtained from the architect, Mr. S. C. Phillips, housing surveyor, Municipal Offices, on payment of deposit £2 2s. for each set of quantities of each type, refunded on return of bill of quantities accompanied by a bona-fide tender.

THE Guildford Town Council has accepted the tender of the London Building Guild to erect forty houses on the Guildford Park estate for £29,838, an average of £746 per house.

## TENDERS.

## ABINGDON.

For erection of fifty houses in the borough.	Messrs. West & Son, architects, The Knowle, Abingdon.		
Winkworth & Winkworth, Ipswich.	£46,973	3	8
Guest & Goodall, Ltd., Sunninghill, Ascot	46,379	8	8
Abingdon Associated Builders, Abingdon	42,790	0	0
Bartlett Bros., Witney	42,760	0	0
S. Hutchins & Son, Oxford	41,763	0	0
The Unit Construction Co., London	41,530	0	0
A. L. & H. W. Chown, Northampton	41,160	0	0
Kingerlee & Sons, Oxford	39,900	0	0
E. Organ & Son, Oxford	39,593	0	0
Parnell & Clifford, Reading	38,804	0	0
A. Cox & Son, Ltd., Abingdon	38,722	0	0
Gay & Co., Ltd., London	38,230	0	0
Hinkins & Frewin, Oxford	37,500	0	0
Benfield & Loxley, Oxford	37,184	0	0
I. E. Billings & Co., Ltd., Oxford	36,000	0	0
The Building and Public Works Construction Co., Ltd., Swindon	34,255	12	6

No announcement has been made as to acceptance of any tender.

## BEXLEY.

For thirty houses in Hartford Road, Bexley, for the Bexley Urban District Council.			
Thomas Knight, Sidcup	£32,782	0	0
Ebbutt, Croydon	30,880	0	0
Kennard, Sydenham	29,896	0	0
Thomas & Edge, Woolwich	28,345	0	0
Foster, Norwood Junction	28,033	0	0
J. W. Ellingham, Dartford	27,000	0	0
Winters, South Norwood	25,366	8	10
W. B. Butler, Bexleyheath	24,877	12	3

It was decided that the tenders of Messrs. Ellingham, Butler, and Winters be forwarded to the Ministry with the observations of the architect.

## CATERHAM.

For erection of six houses on the Queen's Park site, for the Urban District Council.			
C. H. GIBSON, LTD., Croydon (accepted)	£5,370	0	0

## GREATHAM.

For erection of eight pairs of class A cottages (various types) at Greatham, for the Hartlepool Rural District Council.			
Mr. J. Blackwell, Union Offices, Harr Road, West Hartlepool, architect. Quantities by the architect.			
THOMPSON & SON (accepted)	£12,810	0	0

AFTER hearing a deputation from Eston Urban Council, the Gisborough Rural Council has appointed a committee to deal with a proposal for town planning in an area where the boundaries of the two authorities join. It was stated that Messrs. Bolckow, Vaughan & Co. had in view a project which will comprise 1,250 houses.

THERE was practically no private building in Poland during 1920 owing to the high cost of wages and building materials. The construction of several Government buildings for the housing of Ministries and Government Departments was started upon, and a large number of buildings which have been allocated to Ministries are being rebuilt. According to a report from H.M. Legation, the housing problem in Warsaw and other provincial towns is becoming daily more serious, and is explained by the fact that Poland is housing large numbers of refugees from Soviet Russia and is obliged to find accommodation for the Ministries and Government Departments which have, and are being, created since the establishment of the Polish State. The cost of building in 1920 has altered very little from that in 1913.

THERE is stated to be a strong possibility that the Government of Quebec will endeavour to develop the asbestos industry in Quebec, so as to give employment, in the same manner as the great paper and pulp business has been developed. About 85 per cent. of the asbestos supply of the world is in Quebec. The Government is considering whether asbestos can be worked to a certain state of manufacture, if not altogether. The situation is largely parallel with the wood position. Wood cut on Crown lands cannot be exported except as pulp or paper, and the asbestos comes from Crown property, the mines not being sold outright, but mineral rights given. The development of an industrial manufacturing business in asbestos would, it is calculated, create a great and new industry in the province.



# R.I.B.A. CONFERENCE

## AT

# MIDLAND ADELPHI HOTEL

## LIVERPOOL.

The Attention of Architects is directed  
to the fact that the whole of the

*Hollow Fireproof Floors, Ferro-Concrete  
Staircases, Holbloc Sound and Fireproof  
Partitions*

and the

Groined Vaultings to Terraces  
Also the whole of the French Stuc Plain  
and Decorative Plastering throughout  
(with the exception of one room)  
(which was fixed by B. H. J. & Sons)

was executed by

**Messrs. BEN HENRY JOHNSON & SONS**

who were also responsible  
for portions of the

*Decorative Woodwork*

*Messrs. Johnson's work  
in the erection of the  
Midland Adelphi Hotel  
comprised:—*

15 Acres Hollow Concrete  
Floors (averaging 12 in.  
thick).

18 Miles Encasing Steel-  
work, Beams, and Stan-  
chions.

42,000 Yards Hollow Con-  
crete Partitions.

13,000 Yards Solid Par-  
tition.

100,000 Yards Plastering,  
Walls and Ceilings.

15 Miles Enriched and  
Plain Cornices.

73 Miles Panel and Dado  
Moulds.

600 Cubic Yards Concret-  
ing Staircases.

*All executed in record  
time!*

# BEN HENRY JOHNSON & SONS,

Sole Proprietor: BEN HENRY JOHNSON.

MEMBERS' MANSIONS, 36 VICTORIA STREET, S.W. 1.

STUDIO AND WORKS: 88a PARK HILL ROAD, HAMPSTEAD.

LOCAL OFFICE AND SHOWROOMS: 38 HOPE STREET, LIVERPOOL.

*To avoid disappointment Architects are asked to note that this Firm has no connection with any other  
Firm in the Trade.*

Telephones: VICTORIA 296.  
HAMPSTEAD 6057.  
LIVERPOOL ROYAL 2665.

Telegrams: JOHN-ONIPLA, LONDON.  
HENJONIN, LIVERPOOL.

# THE ARCHITECT

FOUNDED 1869.

Incorporating "The Contract Reporter," 1885.  
"The Builder's Reporter and Engineering Times."  
"The Building Trade," 1913.

FRIDAY, JUNE 24, 1921.

Owing to the increasing demand for back numbers we are compelled to give the following notice:—

All numbers for the past twelve months 9d. each, previous to that date 1s. each.

## TENDERS, &c.

As great disappointment is frequently expressed at the non-appearance of Contracts Open, Tenders, &c., it is particularly requested that information of this description be forwarded to the Office, Imperial Buildings, Ludgate Circus, London, E.C., not later than 2 P.M. on Wednesdays.

## CONTRACTS OPEN.

ABERDEEN.—July 8.—For alterations, adaptations, &c., to Oldmill Hospital, Aberdeen, for His Majesty's Works, &c. Tenders are required for the whole work and not for separate trades. Deposit £1 1s. The Secretary, Joint (Disablement) Committee, Northern Scotland, 40 Union Street, Aberdeen, or the Architect, H.M. Office of Works, 3 Parliament Square, Edinburgh.

ALFRETON.—July 4.—For erection of fifty-four houses on the Mansfield Road site, Alfreton, and twenty houses at Swanwick, for the Alfreton Urban District Council. Mr. Bailey Deeping, architect, 12 Gluman Gate, Chesterfield.

ALNWICK.—June 30.—For the conversion of the school premises into three workmen's dwellings at the Alnwick Union Workhouse. Mr. H. W. Walton, clerk, Alnwick.

ASHTON-UNDER-LYNE.—June 30.—For builders' work in connection with the installation of a 6,000-k.w. generator for the Ashton-under-Lyne Corporation. Mr. S. Stott, architect, York Chambers, Yorkshire Street, Oldham.

ASHTON-UNDER-LYNE.—July 4.—For erection of a monument in Ashton-under-Lyne containing about 1,100 cubic feet of Portland stone, for the War Memorial Committee. Deposit £1 1s. Mr. P. Howard, A.R.I.B.A., architect, 88 Mosley Street, Manchester.

BARKING.—June 27.—For erection of a secondary school at Barking, for the Education Committee of the Essex County Council. Deposit £3 3s. Mr. J. T. Edwards, Technical School, Barking, or Mr. J. Stuart, F.R.I.B.A., county architect, Old Court, Springfield, Chelmsford.

BARNLEY.—July 1.—The West Riding Education Committee invite tenders for erection and adaptation of Army hut at Barnley grammar school. Mr. H. Wormald, A.R.I.B.A., county education architect, County Hall, Wakefield.

BECCLES.—July 4.—For twelve cottages to be erected on the St. Mary's Road site at Beccles, for the Corporation. Deposit £2 2s. Mr. W. B. Forward, town clerk, Blyburgate, Beccles, or Mr. H. M. Cautley, architect, The Thoro'fare, Butter Market, Ipswich.

BELPER.—For erection of twenty houses at Denby, on main road between Derby and Ripley, for the Belper Rural District Council. The committee will require the houses to be completed and handed over in instalments. Mr. H. G. Smith, architect, 69 Loughborough Road, Nottingham, or Mr. R. C. Corden, surveyor, Belmont, Duffield, near Derby.

BOLTON-ON-DEARNE.—June 30.—For builders', joiners', plumbers', plasterers', slaters' and ironfounders' work in connection with proposed alterations and additions for Angel Hotel, Bolton-on-Deane, for the Melbourne Brewery Co., Ltd. Send applications by June 30 to Messrs. Newbald & Hartley, architects and surveyors, 1 Barstow Square, Wakefield.

BRIDGE, NEAR CANTREBURY.—June 27.—For erection of one pair of cottages at Lower Hardres, two pairs at Chartham, and three pairs at Wickhambreau, for the Bridge Rural District Council. Deposit £2. Messrs. Jennings & Gray, architects, 4 St. Margaret's Street, Canterbury.

DARFIELD, YORKS.—July 1.—For erection of 149 houses at Millhouses, for the Darfield Urban District Council,

viz.:—Type A—four pairs, one block of three, nineteen blocks of four; type B 3—twenty pairs, four blocks of three; type B 4—five pairs. Deposit £2 2s. Mr. H. Smith, architect, Wentworth, near Rotherham.

DEVIZES.—July 4.—For erection of the first section of the housing scheme, consisting of twenty-eight houses, on the Southbroom site, for the Town Council. Messrs. Harvey & Wicks, architects, 5 Bennett's Hill, Birmingham. Deposit £2 2s. Mr. J. T. Jackson, town clerk, Devizes.

DUNFERMLINE.—July 4.—For the following works in connection with the erection of twelve houses at Limekilns site, adjacent to Limekilns School, for the Dunfermline District Committee of the Fife County Council: (1) Excavator and brickwork; (2) joiner, carpenter, and ironmongery work; (3) slater and roughcast work; (4) plumber work; (5) plaster and concrete work; (6) glazier work. Deposit £1 1s. Mr. H. F. Hodge, District Engineer, County Buildings, Dunfermline, or Messrs. Muirhead & Rutherford, architects, East Port, Dunfermline.

EBBW VALE.—June 30.—For erection and conversion of four Army huts into dwellings at Waengoch district, Beaufort Rise, for the Ebbw Vale Urban District Council. Deposit £2. Mr. P. I. Davies, housing architect, Council Offices, Ebbw Vale.

EDINBURGH.—June 30.—For alterations and adaptations at Pilton Hospital, Edinburgh. Deposit £1 1s. The Architect, H.M. Office of Works, 3 Parliament Square, Edinburgh.

FAILSWORTH.—July 2.—For erection and completion of 100 brick houses at Lord Lane, Failsworth, first portion of Council's housing scheme, comprising twenty blocks of two and fifteen blocks of four, all parlour type, with three bedrooms, together with drains, paths, fencing, &c., for the Failsworth Urban District Council. Contractors may tender for a portion (not less than one pair) or for the whole. Successful contractor must contract for completion of houses at dates to be specified, but not later than July 1922. Bills of quantities and forms of tender after June 20 on application, with deposit of £2 2s., at Clerk's Dept., Town Hall, Failsworth. Drawings and forms of contract may be inspected at offices of architect, Mr. G. H. Fletcher, L.R.I.B.A., 26 Corporation Street, Manchester.

HARWICH.—June 27.—For erection of the "New London Tavern," Church Street, Harwich, for the Harwich, Dovercourt, and Parkeston Co-operative Society, Ltd. Send applications and £2 2s. deposit by June 27 to Mr. H. R. Hooper, A.R.I.B.A., 13 Queen Street, Ipswich.

HASTINGS.—June 29.—For certain alterations and repairs at their Children's Homes, 14 Edmund Road, and 121 Mount Pleasant Road, Hastings, for the Guardians. Mr. T. W. Elworthy, 81 London Road, St. Leonards-on-Sea.

HEMSWORTH, YORKS.—July 4.—For erection and completion of fifty-six dwelling-houses in connection with the Hemsworth-Barnsley Road (No. 2) housing scheme, for the Urban District Council. Deposit £1 1s. Mr. T. H. Richardson, architect, Field Road, Brierley.

HORNCASTLE.—July 4.—For alterations, repairs, and new building in connection with the adaptation of Horncastle Dispensary as a cottage hospital, for the War Memorial Committee. Mr. F. Weeber, Foundry Street, Horncastle.

HUDDERSFIELD.—July 4.—For erection of forty-six workmen's dwellings (three blocks of six houses each and seven blocks of four houses each) on the Grove Place site, Long Lane, Dalton, Huddersfield, for the Corporation. Mr. H. Sutcliffe, borough architect, 1 Peel Street, Huddersfield.

KEIGHLEY.—July 1.—For the masons' and joiners' work only in twenty-six scullery houses to be erected on the Broomhill estate. Borough Engineer, Town Hall, Keighley.

KNOTTINGLEY.—June 27.—For pulling down of certain properties and building of a new hotel in Gillygate, Pontefract, for Messrs. Carter's Brewery Company, Knottingley. Send names to Mr. W. J. Tennant, architect and surveyor, Pontefract, by June 27. Deposit £2 2s., returned on receipt of a bona-fide tender.

LANGHAM, &c., ESSEX.—June 28.—For erection of houses at Langham, four; Boxted, four; Little Tey, four; and Wormingford, four; for the Lexden and Winstree Rural District Council. Deposit £2 2s. The Housing Office, Bank Chambers, High Street, Colchester.

LLANDOVERY.—June 30.—For erection of ten houses on the following sites, for the Llandovery Rural District Council:—Llanfairybryn site, near Bethel Chapel, Cynghordy, two houses; Ynysau site, Pumpsaint, two houses; Pen-rhe-fail site, Pumpsaint, two houses; Llanwrda site, four houses. Deposit £2 2s. Mr. E. El. Lewis, architect, Lampeter.





EIGHT CHIMNEYS RECENTLY BUILT BY CUSTODIS, LTD.

Enquiries invited.

CUSTODIS, LTD.,

119 Victoria Street,  
WESTMINSTER, S.W.1

TELEGRAMS—Custodomus Sowest.  
PHONE—779 Victoria

**HEATING**

AND HOT  
WATER  
SUPPLIES.

FOR EVERY DESCRIPTION OF BUILD-  
ING, OFFICES, FACTORIES, &c. &c.

CHAS. P. KINNELL & CO., LTD.,  
65, Southwark Street, London, S.E. 1

**VENTILATION**

EXPERT ADVICE & ESTIMATES FREE



17 degrees  
Blacklead  
6B (Softest)  
to  
9H (Hardest)

1 BLACKLEAD:  
6d. each, 5/6 doz.  
COPYING:  
4d. each, 3/9 doz.

For  
Architects  
& Builders  
Of all Stationers &  
Drawing Office Suppliers

"VENUS" Lower Clapton Road E. 5.

**ASPHALTE**

Send your inquiries to:  
F. J. L. ROBERTSON,  
22 Oakdale Road,  
Streatham, S.W. 16.  
Telephone: STREATHAM 1044.

Quotations given for Work in Town or Country.  
Also BITUMEN DAMPCOURSES, ROOFING FELTS, Etc., Etc.

**BEDFORD LEMERE & CO.**

Architectural & Technical Photographers,  
147 STRAND, LONDON, W.C. (First floor).

PHOTOGRAPHS  
TAKEN AND PROOFS  
DELIVERED SAME  
DAY. PRICE LISTS  
& ESTIMATES FREE  
Established 1862.  
TELEPHONE 4258 CENTRAL

**SPECIALIST**

in **BLINDS**

**ALBERT J. SHINGLETON**

118 HIGH ST., KENSINGTON, LONDON, W

TELEGRAMS: "BLINDS, KENS. LONDON."  
TELEPHONE: 357 WESTERN.

Plans Prepared and Estimates given for Blinds  
to Architects' Special Requirements.



LOOE, CORNWALL.—June 29.—For erection of twelve houses (parlour type), four on Beech Terrace site and eight on site at Hannaford, for the Looe Urban District Council. Mr. C. W. Parkes Lees, L.S.A., architect and surveyor, Fowey.

LONDON.—July 1.—For erection of fifty-two maisonettes on the Latchmere estate, and four maisonettes in Savona Street, for the Battersea Borough Council.—Five shillings per part will be payable for quantities, returnable on receipt of tender. The Council may accept a tender for the whole or for either:—(a) two houses, each containing two three-roomed dwellings, Savona Street; (b) eight houses, each containing two four-roomed dwellings, Latchmere estate; (c) eighteen houses, each containing two three-roomed dwellings, Latchmere estate. Mr. E. Austin, town clerk, Town Hall, Battersea, S.W. 11.

MAGOR.—July 1.—For the erection of houses in their district, as follows, for the Magor Rural District Council: Llangatock, 14 houses, B class, in pairs; Christchurch, site No. 1, 10 houses, A class, in pairs, site No. 2, 6 houses, A class, in pairs, site No. 3, 10 houses, A class, in pairs; Langstone, 2 houses, A class; Kemeys Inferior, 2 houses, A class; Llanvaches, 4 houses, A class, in pairs; Magor, 8 houses, A class, in pairs; Bishton, 2 houses, A class. Applicants may tender for all or any of the houses, and should state the site or sites for which they desire to tender. Messrs. Thomas & Morgan & Partners, architects, 23 Gelli-wastad Road, Pontypridd, or Mr. W. Dowler, clerk, Union Offices, Queen's Hill, Newport, Mon.

MATLOCK.—June 30.—For erection of fourteen type C and eight type B houses on the Lyn Holmes housing site, for the Matlock Urban District Council. Contractors may tender for ten type C houses, four type C, eight type B, or for the whole twenty-two. Deposit 10s. Mr. J. Simpson, architect, Town Hall, Matlock.

MILLOM.—July 3.—For rection of twenty-five houses on the Moor Road site, for the Millom Urban District Council. Mr. H. T. Fowler, A.R.I.B.A., 6 Cornwallis Street, Barrow, or the Surveyor, Market Square, Millom, Cumberland.

NEATH.—July 2.—For erection of forty-eight houses in brickwork under the housing scheme, chiefly roadside frontages, at Cilfrew—ten houses in blocks of two, type B; Crynant—eighteen houses in blocks of two, type B; and Seven Sisters—twenty houses in blocks of two, type B, for the Neath Rural District Council. Deposit £2 2s. Mr. D. M. Davies, M.I.M., and C.E., M.S.A., engineer and architect, Council Offices, Neath.

NEWPORT, SALOP.—June 30.—For taking down a large Y.M.C.A. building at Tern Hill, near Market Drayton, and for re-erection of same at Edgmond, Newport, Salop. Mr. J. H. Ward, 5 Granville Villas, Newport, Salop.

OGWEN.—July 1.—For erection of the following houses, for the Ogwen Rural District Council: Eight houses on Henraes Farm site (main road), Aber; ten houses on Tynlon Field, Gelli, Tregarth; eight houses on Cae Gwigin site, Tal y Bont; eight houses on Pentrefield, Penrhosgarnedd. Deposit £2 2s. Mr. J. Hughes Roberts, clerk to the Council, Tanyfynwnt Offices, Bangor.

OLDHAM.—July 4.—For erection of a new sorting-office at Oldham, for His Majesty's Works, &c.. Deposit £1 1s. The District Surveyor, H.M. Office of Works, New Bridge Street, Manchester, or the Contracts Branch, H.M. Office of Works, King Charles Street, London, S.W. 1.

PATCHAM.—July 4.—For erection of twelve houses at Carden Avenue, Patcham, under their assisted housing schemes, for the Steyning East Rural District Council. Deposit £1 1s. The Surveyor's Office, Town Hall, Southwick.

PENARTH.—For erection of thirty-two B class houses, in pairs, at Cornerswell Gardens, Penarth, for the Penarth Public Utility (Housing) Society, Ltd. Mr. A. C. Huffell, architect and surveyor, Lloyds Bank Chambers, Windsor Road, Penarth.

SHEFFIELD.—For any or all trades required in erection of a new picture theatre in Sheffield. Mr. P. A. Hinchliffe, F.R.I.B.A., 14 Regent Street, Barnsley.

SWINDON.—June 27.—For erection and completion of 100 houses (50 type B and 50 type D) on the Hurst Farm estate, for the Corporation. Deposit £1 1s. Tenders to be for twenty-five houses of each type. The Borough Surveyor, 34 Regent Circus, Swindon.

WALLASEY, CHESHIRE.—June 30.—For extensions at the Victoria Central Hospital war memorial, comprising new children's wards, laundry block, and sundry additions. Send applications by June 30 to Messrs. Briggs & Thornley, architects, Royal Liver Buildings, Liverpool.

WESTON-SUPER-MARE.—For erection of twenty houses on a level site, for the Urban District Council. Mr. H. A. Brown, engineer and surveyor, Town Hall, Weston-super-Mare.

## TENDERS.

### DUBLIN.

For the erection of sixty concrete block dwellings of three types on the southern section of the Fairbrothers' Fields area, for the Corporation.

McNally & Co.	£77,460	0	0
Louis Monks	72,613	0	0
Richard Gough	70,714	0	0
J. & W. Beckett, Ltd.	69,237	0	0
J. & R. Thompson, Ltd.	63,479	0	0
Municipal Workshops*	63,197	0	0
H. & J. Martin, Ltd.	61,782	0	0
Building Trades Guild, Ltd.*	61,744	0	0

\* These tenders are on a schedule which omits the provision of plant, insurance, &c.

### LOUGHTON.

For the erection of houses on the Habgood estate (second part), for the Loughton Urban District Council. Mr. H. White, F.R.I.B.A., architect, Loughton.

Two blocks Class A—eight houses.

E. A. Russell	£6,500	0	0
S. Shaw	6,400	0	0
Stevens, Horlock Co.	6,162	0	0
Warriner & Herd	6,117	10	0
C. J. Smith	6,114	1	5
West & Brookes	5,592	0	0
E. Roome & Co.	5,586	0	0
F. M. Miles	5,552	0	0
W. Jones & Sons	5,521	1	6
A. Fairhead & Son	5,509	0	0
A. Monk	5,500	0	0
C. Miskin & Sons	5,276	0	0
J. Oram & Son *	5,100	0	0

Two pairs Class B.

R. & J. Truscott	£3,629	13	10
E. A. Russell	3,600	0	0
Warriner & Herd	3,585	17	10
C. J. Smith	3,572	7	6
West & Brookes	3,360	0	0
S. Shaw	3,300	0	0
W. Jones & Sons	3,291	8	10
Stevens, Horlock Co.	3,286	0	0
E. Roome & Co.	3,284	0	0
C. Miskin & Sons	3,249	0	0
A. Monk	3,247	0	0
A. Fairhead & Son	3,223	0	0
F. M. Miles	3,188	0	0
J. Oram & Son *	3,100	0	0

Seven pairs Class B.

C. J. Smith	£12,077	13	4
Warriner & Herd	12,066	3	10
Stevens, Horlock Co.	11,578	0	0
S. Shaw	11,550	0	0
W. Jones & Sons	11,220	5	5
E. Roome & Co.	11,158	0	0
West & Brookes	11,130	0	0
F. M. Miles	11,130	0	0
A. Monk	10,960	0	0
C. Miskin & Sons	10,885	0	0
A. Fairhead & Son	10,875	0	0
J. Oram & Son *	10,500	0	0

Four pairs Class B2.

Warriner & Herd	£6,960	19	0
J. & J. Dean	6,730	0	0
C. J. Smith	6,693	14	8
S. Shaw	6,600	0	0
West & Brookes	6,392	0	0
F. M. Miles	6,344	0	0
E. Roome & Co.	6,236	0	0
W. Jones & Sons	6,225	1	4
Stevens, Horlock Co.	6,160	0	0
A. Fairhead & Son	6,120	0	0
A. Monk	6,093	0	0
C. Miskin & Sons	5,905	0	0
J. Oram & Son *	5,700	0	0

\* Recommended for approval to the Ministry of Health.



**JONATHAN LONGBOTHAM & SONS, Ltd.**

DRY ENGLISH OAK CILLS.  
ASH AND OAK PLANKING.  
FOREIGN DEALS, BATTENS  
AND BOARDS, WOOD WOOL.

*English and Foreign Timber Merchants*

Carbon Chambers,  
Water Lane, Sheffield.

Also at LONDON,  
BIRMINGHAM,  
NEWCASTLE, and  
GLOUCESTER.

**Lifts and****ELECTRIC &  
HYDRAULIC****Hoists**

We are one of the oldest estab-  
lished makers in London.  
Before placing your order,  
may we submit Estimates?

**SMITH, MAJOR  
& STEVENS Ltd.**

(Late Archibald Smith &amp; Stevens.)

BATTERSEA, LONDON, and  
Abbey Works, NORTHAMPTON.

*Agents in all the Principal Towns.***WEST LONDON TIMBER & MOULDING CO. LTD.****TIMBER MERCHANTS & MANUFACTURERS**

of all kinds of

Telephone No.:  
CHISWICK  
1737  
(2 lines)

**MOULDINGS**

Telegrams  
UPRIGHTLY  
GUNNERS,  
LONDON

MAGNOLIA HOUSE. STRAND-ON-THE-GREEN. CHISWICK, W.4

**HEATING**

COMPLETE SCHEMES submitted free for every  
description of PUBLIC or PRIVATE BUILDING,  
Greenhouses, &c.

Particulars on application.

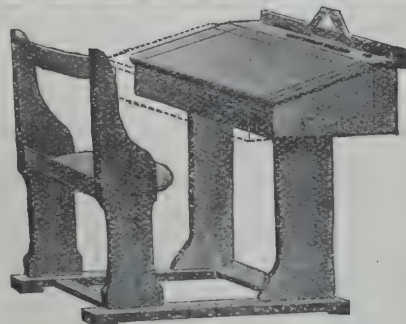
Tel. No. Leeds 26356. Telegrams: "Drying, Leeds."

**Vincent Roberts & Co., Charmouth Street, Leeds.****SCHOOL FURNITURE  
& FITTINGS**

DESKS & SCHOOL FITTINGS TO  
SUIT ALL REQUIREMENTS,  
MATERIALS & WORKMANSHIP  
GUARANTEED.

DESKS SUPPLIED TO:

ETON, RUGBY AND WESTMINSTER SCHOOLS,  
ROYAL NAVAL COLLEGES, DARTMOUTH, OSBORNE  
AND GREENWICH,  
CHELTENHAM LADIES' COLLEGE, DOWNSIDE COLLEGE,  
&c.



DESK AS SUPPLIED TO ROYAL  
NAVAL COLLEGES.

**ESA** The EDUCATIONAL SUPPLY ASSOCIATION, Ltd. **ESA**  
Stevenage House, 40-44, Holborn Viaduct, London, E.C.1.

## CURRENT LONDON PRICES.

[COPYRIGHT.]

These Prices apply to a New Building, costing from £1,000 upwards, and easy of access.  
They hold 10 per cent. in excess of the actual prime cost, without Establishment Charges.

## PRELIMINARIES.

Allow for General Foreman, according to nature of contract, } for duration of contract ... ..	From £7 per week
Allow for Workmen's Compensation and Public Health Acts over whole amount of general building contract ... ..	1%
Allow for Insurance against fire, ditto ... ..	½%
Allow for water, ditto ... ..	1%
Allow for District Surveyor's Fees For a new building 400 square feet in area and two storeys high ... ..	30/0
Add for every additional 100 feet in area ... ..	2/6
Add for every additional storey in height ... ..	5/0
Add for inspection of fire exits, &c., under Amendment Act, 1906—the greater of these alternatives ... ..	½th of the above fees or £1 ls.
Allow for supervision of plastering ... ..	5/0
Allow for filling in trenches within three feet of a building ... ..	5/0
Allow for licences in respect of hoardings, &c., within the City of London, as Regulations ... ..	say £10
Ditto, for licences from Borough Councils ... ..	say £1
Allow for mess and material sheds, offices, &c. ... ..	from £50
Hoardings complete ... ..	Per Foot Run
Planked gangway with handrail complete ... ..	6/0
Proper gantry complete ... ..	70/0
Sleeper roadways ... ..	12/0
Needling-strutting or shoring, including all labours and use and waste in erection and removal ... ..	Per Foot Cube 9/0

## DEMOLITION

Pull down brickwork ... ..	Per Ft. super reduced In small quantities 9d.	In considerable quantities 3½d.
Add, if in very small quantities not exceeding 21 ft. ... ..	9d.	
Add for filling baskets with debris and running same out to carts ... ..	4½d.	3½d.
Add if debris has to be raised or lowered to ground level... ..	3½d.	Usually dropped
Add for cartage when same costs 12s. per 1½ yard load ... ..	7d.	7d.
Clean and stack old bricks ... ..	28/0 per thousand	
Hack off old plaster ... ..	1/5 per sq. yard.	

## EXCAVATOR, CONCRETOR AND DRAINS.

Excavate in common soil, wheel, fill carts and cart away ... ..	23/0	25/4	1/3
Planking and strutting ... ..	6d. per foot super.		
Planking, strutting and shoring ... ..	1/0	"	
Portland cement and ballast ... ..	1 to 6	1. 2. 4.	Holsting
Concrete in foundations ... ..	52/9	68/2	5/6
Add if in ground floors ... ..	3/3	4/3	5/6
Add if in beams or lintels... ..	4/9	6/4	5/6
Tested stoneware drains jointed in cement or standard iron drains jointed in lead, per foot run ... ..	2/6	3/10	6/2
Extra only for bends, each ... ..	4/0	6/0	15/0
Ditto, for junctions, each ... ..	4/6	6/6	24/0
Gullies, including concrete surround and iron grating, each ... ..	20/0	26/0	55/0

## BRICKWORK (Exclusive of Pointing).

Built in 1 to 3 lime mortar ... ..	Flettons 941/0	Per Rod Reduced Stocks 1171/0	Blues 1600/0
" " cement mortar ... ..	1004/0	1263/0	1693/0
Damp course. Two courses of slates in cement 2-in. asphalt ... ..	1/2 1/3	Per Foot Super. Horizontal 1/6 1/8	Vertical 1/6 1/8
Facings Allow for every 5s. additional cost of the facing bricks over the common brick basis ... ..	½d.	Per Foot Super. Flemish bond	English bond
Pointing (exclusive of scaffolding) Weather joint in cement ... ..	3½d.	Per Ft. Super.	
Flat joint in cement (struck) and lime whitening ... ..	2d.		

## ARCHES.

Extra over common brickwork In half-brick rings of bricks of same class as common brickwork ... ..	Per Ft. Super. 1/0
Add if of superior bricks for ever 7/6 per thousand additional cost ... ..	1d.
In rubbed and gauged arches with fine joints ... ..	7/6
Quoins, angles, copings and sills of superior bricks. Allow for every 5s. per thousand additional cost of bricks over the common basis price ... ..	Per Ft. Run ½d. plus 10%
Double tile creasing and cement fillets and pointing to 2-in. wall ... ..	1/4

## PAVIOR.

	1in.	1½in.	2in.	3in.
Cement and sand ... ..	4/6	5/0	5/3	6/0
Granolithic ... ..	5/9	6/4	7/0	8/2
Asphalte ... ..	15/0	—	—	—
Tar mac ... ..	—	—	6/0	7/0

## MASON.

	Per Foot Cube	Per Yard Super.
York stone and all labours and mortar in hoisting and fixing ... ..	21/0	23/0
Artificial stone ... ..	11/6	10/6
Portland stone and all labours of usual character ... ..	28/0	14/0
Bath stone ditto ... ..	14/0	

## CARPENTER.

	Plates	Floors	Roofs	Trusses
Fir framed in carpenter's work, per ft. cube ... ..	6/6	8/0	8/3	11/0
At per square ... ..	3in.	1in.	1½in.	
Deal close boarding ... ..	45/0	50/0	60/0	
Battening for slates ... ..	13/0	14/0	15/0	
Roofing felt, lapped and laid ... ..	17/0 to 26/0			
Gutter boards and bearers, per foot super. ... ..				1/6

## JOINER.

	Per square	3in.	1in.	1½in.
Deal plain-edged flooring ... ..	—	—	52/0	62/0
Deal tongued and grooved flooring ... ..	—	—	60/0	71/0
Deal matching ... ..	51/0	60/0	77/0	90/0
Sashes, per foot super. ... ..			1½in.	2in.
Deal moulded sashes, divided in squares ... ..			2/6	3/9
Windows, per foot super. ... ..	Very Small	Small	Normal	Large
Deal cased frames, 1in linings, 1½in. pulley styles, 2in. sashes in squares, oak sill, double hung with pulleys, lines and weights ... ..	15/0	7/0	4/6	4/0
Doors, per foot super. ... ..	2	4	6	8
Square frame, both sides doors ... ..	2/0½	3/2	5/6	3/10
Add for each side moulded ... ..	4d.	6d.	6d.	8d.
Add for each side bead butt ... ..	5½d.	5½d.	7½d.	10d.
Doors of hardwood, such as oak or mahogany will cost three times as much exclusive of polishing. If in teak add 10% in addition.				
Staircase. 1½ Deal tread, 1in. riser, fixed complete, per foot super....				3/0
2in. Deal strings, per foot super. ... ..				2/6
Housing steps to strings, each ... ..				1/0

	Per Foot Cube	Per Foot Super.
Mahogany French-polished handrail ... ..	120/0	85/0
Add if ramped ... ..	240/0	170/0
Add if wreathed ... ..	480/0	280/0
Deal balusters, housed each end, each ... ..	1½in.	1½in.
Deal newels, per foot run ... ..	3 by 3 1/3	3½ by 3½ 1/7
Deal Super. Sundries ... ..	1in.	1½in.
Deal shelves or divisions ... ..	1/8½	1/11
Deal shelves, cross-tongued ... ..	1/10½	2/1
Shelves, in oak or mahogany = 3½ times value of deal, exclusive of polishing. Teak same as oak plus 10%.	2/3	2/4½
Deal skirtings, moulded and backings and grounds ... ..	2/4	2/5½
Deal jamb linings, rebated and framed and backings ... ..	2/4	2/5½
Skirtings and linings, in oak or mahogany = 3½ times value of deal, exclusive of polishing. Teak same as oak plus 10%.		

	Sectional Area
Fillets, rails and frames. 1in. 2in. 4in. 6in. 9in. 12in. 14in. 18in.	
Deal, wrot and fixed, including mitres 2½d. 4d. 6½d. 9d. 1/1 1/5 1/7½ 1/10	
Deal, wrot fixed and moulded ... 3d. 4½d. 7½d. 10½d. 1/2½ 1/7 1/10 2/1	
Deal, wrot, moulded, rebated, framed and fixed ... ..	8½d. 11d. 1/3 1/7 1/10 2/0½
Fillets, mouldings and frames in oak or mahogany will cost 3½ times their value in deal, exclusive of polishing, or if in teak the same as oak plus 10% in addition.	
CIRCULAR WORK: Add to the price of similar straight work one third for every eighth of an inch rise on a foot chord line.	



# REDUCE THE COST AND INCREASE THE EFFICIENCY OF YOUR BUILDINGS BY ADOPTING OUR BARRETT SPECIFICATION PRINCIPLE FOR FLAT ROOFS. 20 YEARS' GUARANTEE.

Sole Contractors: NORTHERN ASPHALT CO., CARDIGAN ROAD, LEEDS.

## SPRAGUE-HAYCOCK'S

(PRINTERS) LIMITED

"INK - PHOTO" PROCESS  
is unrivalled for the Reproduction  
of Architectural Drawings.  
For over sixty years the Plates  
published in "The Architect" have  
been printed by this process.

NOTE ONLY ADDRESS:—  
69 & 70 Dean St., Soho, London, W.1.  
Telephone: Gerrard 1802.

SECURITY



£10,051,479

Head Offices: { 45 Dale Street, Liverpool.  
155 Leadenhall Street, London, E.C. 3.  
Chief Administration—  
5 & 7 Chancery Lane, London, W.C. 2.

FIRE. CONSEQUENTIAL LOSS.  
BURGLARY. ACCIDENTS. MOTOR CARS.  
EMPLOYERS' LIABILITY. MARINE.

Insurance against BOILER EXPLOSION and  
ENGINE BREAKDOWN.

## LIGHTNING CONDUCTORS.

Wholesale Manufacturers and Erectors

**W. J. FURSE & CO.**  
TRAFFIC STREET, NOTTINGHAM.

Chimneys Erected and Repaired. Church Spires Restored.  
Telegrams: "FURSE, NOTTINGHAM."

## ALEX. FINDLAY & CO. LTD.

MOTHERWELL, SCOTLAND.  
STEEL ROOF AND BRIDGE BUILDERS.  
STRUCTURAL ENGINEERS.

Contractors for the Main Buildings  
and Great Stadium for the  
Franco-British Exhibition, London, 1908.  
LONDON OFFICE: 9 VICTORIA ST., S.W.

# KINNEAR PATENT STEEL ROLLING SHUTTERS

for

Car and Bus Depots,  
Generating Stations,  
Boiler Houses,  
Harbour Warehouses  
Core Ovens,  
Garages, and  
Entrances Generally.

On Admiralty, War Office and other Lists.

**ARTHUR L. GIBSON**

Radnor Works, TWICKENHAM

GLASGOW: MANCHESTER:  
121 West George St. 90 Deansgate.

FOR

## Architectural Castings and Ironwork

Send Inquiries to  
W. A. BAKER & CO. (1910), LTD.  
NEWPORT, MON.

IT PAYS  
TO EMPLOY A BROKER FOR ALL INSURANCES  
**SHERWELL'S NEPHEWS**  
Incorporated Insurance Brokers  
8 QUEEN ST., LONDON, E.C.4  
Telephone No.: CITY 7482.

## MARSHALL & CO.

Architectural Modellers,  
Fibrous Plaster & Carton Pierre  
Manufacturers,  
SULGRAVE ROAD, HAMMERSMITH, LONDON, W.  
Telephone No. 136 Hammersmith.

# OAKEY'S GLASS PAPER.

Flint Paper and Cloth, Emery Cloth and Paper,  
Glass Cloth, Black Lead, Pumice-stone, &c.

Putty Powder, Snake Stone, Second Grit,  
— Polishing Lap for Marble Masons. —

## FLINT AND GARNET PAPER IN ROLLS

50 yards long by 18 in., 20 in., 24 in., 30 in., 36 in., 40 in., 42 in., and  
48 in. wide. And in Sheets, Discs, Strips and Bands of various sizes.

## "WELLINGTON" EMERY WHEELS.

WELLINGTON EMERY & BLACK LEAD MILLS, Westminster Bridge Rd., LONDON, S.E.

# PERFECTION IN ROOFING

## COLTHURST & SYMONS' PATENT INTERLOCKING TILES

No Nailing required. Absolutely Wind-proof. Cannot Strip in the most exposed situation.

Manufacturers of every description of Roofing Tiles, also Ridges, Finials, &c.  
Gold Medal, Paris, 1867. Only Medal, Vienna, 1873. Silver Medal, Paris, 1875.

Works—BRIDGWATER, SOMERSET.

# ROOFING in COPPER or ZINC.

PLAIN OR ORNAMENTAL.

ESTIMATES AND DESIGNS FREE

## BRABYS'

EUSTON RD., LONDON, N.W. 1, and branches.

Established 1839.



**CURRENT LONDON PRICES—Continued.**  
[COPYRIGHT.]

### JOINER—Continued.

				Groove or Bead	Staff Bead or Nosing	Moulding per lin. Girth	Rounded Heel or Hollow or Plugging
Labour only to				1d.	1d.	1d.	2d.
Labour and Screws only Fixing							
Barrel Bolts	Flush Bolts	Sash Fasteners	Looks and Furniture				
1/3	2/6	1/8	Rim Mortice	Upboard	Stays	Fasteners	Grip Handles
			2/9	6/0	2/0	1/4	1/4
							Spring Catches
							1/3
							1/4

**PLUMBER.**

	Per Cwt.	
Milled lead and laying ... ..	Soakers 57/0      Flats 58/0	Flashings and Gutters 64/0

Per Foot Run		Each	
Copper Nailing 4½d.	Soldered Angle 3/3	Welded Joint 6d.	Bossed Ends to Rolls 1/3
			Cess- pools 6/6
			Soldered Dots 2/6

	Per Foot Run							
	½in.	¾in.	1in.	1¼in.	1½in.	2in.	3¼in.	4in.
Lead service ...	1/8	2/1	2/7	3/3	3/7	4/6	—	—
Lead waste ...	1/6	1/11	2/3	2/8	3/1	3/10	—	—
Lead soil ...	—	—	—	—	—	—	8/0	8/9

		Each							
Egg joints...	3/3	4.0	5/4	6/10	8/6	12/3	13/6		
Branch joints	3/7	4.5	5/2	5/10	7/6	9/4	13-2	14 10	
Indiarubber joints	—	—	—	3/6	3/6	—	—	—	
Stop ends ...	9d.	1/0	1/3	1/9	2/0	2/6	—	—	
Bends ...	—	—	—	—	3.4	3.9	11.0	13/3	
Beaded ends	—	—	—	10d.	10d.	1/0	—	—	
Single tacks	—	—	2/0	2/3	2/4	2/6	4/6	5/6	
Double tacks	—	—	3/0	3/3	3/6	3/9	6/6	8/0	
Brass sleeves	—	—	—	—	13/0	15.0	23.6	26.6	
Lead traps	—	—	—	15.0	19.6	27.0	45.0	52.0	
Boiler screws	5/6	7.6	10.6	14.0	17.0	—	—	—	
Bib cooks ...	9/9	14.6	22.0	—	—	—	—	—	
Stop cooks...	15/0	21.0	29.6	£0/8	73/9	146/0	—	—	
Ball cooks...	11/1	15/9	23/9	38/9	51/8	107/0	—	—	
Wire balloons	—	—	—	—	—	9d.	—	1/2	

						Per Foot Run	
						2in.	4in.
Iron (L.O.C.) pipes	...	...	...	...	...		
Soil, vent, waste and anti-syphon pipes, coated, lead-caulked joints	...	...	...	...	...	3 3/8	6/0
Extra for bends	...	...	...	...	each	8/6	15 0
Extra for junctions	...	...	...	...	each	13/6	26 6

**SLATER AND TILER.**

## ROOFING.

		Per Square	
		Countess	Ladies
<b>ROOFING.</b>			
Welsh slating laid to a 2in. lap, with two composition nails to each slate		110/0	99/0
Add for every 1in. additional lap		1/5	1/8
Add for copper nails		3/3	2/6

Best selected green Westmorland slates laid to a 3in. lap, with copper nails	132/0
Asbestos slates laid to a 3in. lap, with compo. nails	85/0
Asbestos corrugated roofing with galv. screws and limpet washers	145/0
Plain red roof tiling 4in. gauge, each tile in every fourth course nailed with two galv. iron nails	120/6
Add for vertical work	2/0
Add for circular on face in elevation	25%
Add for circular on plan, according to radius	40%
Add for circular on face in elevation and also on plan according to radius	66 2/3%

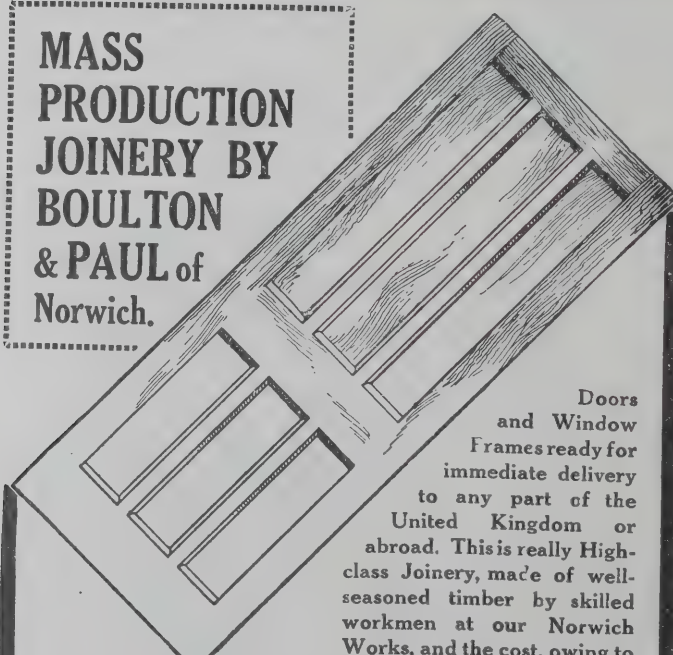
Cuttings—Eaves	000	000	000	000	000	000	Per Foot Run
Egdes and abutments			000	000	000	000	Equal 1 foot super.
Ridge tiling	000	000	000	000	000	000	Equal 1 foot super.
							2/6
Fixing soakers	000	000	000	000	000	000	9d. per dozen

## SMITH AND FOUNDER.

						Per Cwt.		
						Up to 1st Floor		Above 1st Floor
Rolled steel joists	...	...	...	...	...	25/6		28/6
Compound girders	...	...	...	...	...	32/0		35/0
Stanchions	...	...	...	...	...	37/0		40 0
Cast-iron columns	...	...	...	...	...	25/6		28/6
						<b>Light</b>	<b>Medium</b>	<b>Heavy</b>
Steel roof trusses	...	...	...	...	...	68/0	63/0	58/0
Chimney bars	...	...	...	...	...	68/0	64/0	62/0
Tie rods and ring bolts	...	...	...	...	...	65/0	60/0	55/0
Bolts and nuts	...	...	...	...	...	95/0	70/0	60/0
Handrail and balusters	...	...	...	...	...	124/0	118/0	113/0
Steel reinforcing bars bent and fixed	...	...	...	...	...	47/0	40/0	39/0

						Per Foot Run—		
						2in.	3in.	4in.
Rain-water Goods								
Pipes fixed with pipe nails	...	...	...	...	...	2/4½	2/11	3/7
Bends or shoes, each	...	...	...	...	...	4/0	5/0	7/0
Junctions, each	...	...	...	...	...	5/0	7/0	9/3
						4in.	5in.	6in.
Gutters fixed with brackets	...	...	...	...	...	2 2	2/7	3/3
Outlets and angles	...	...	...	...	...	5/0	6/0	7/6
Stop ends	...	...	...	...	...	1/8	2/0	2/3

**MASS  
PRODUCTION  
JOINERY BY  
BOULTON  
& PAUL of  
Norwich.**



**Doors  
and Window  
Frames ready for  
immediate delivery  
to any part of the  
United Kingdom or  
abroad. This is really High-  
class Joinery, made of well-  
seasoned timber by skilled  
workmen at our Norwich  
Works, and the cost, owing to  
the Mass production system  
employed, is kept at the very  
lowest level. Any design to  
special specifications can be  
carried out at once. Send  
for list of designs and state  
your requirements.**

*Some B. & P. Specialities—Boulton and Paul specialise in Wooden Structures of every description; Bungalows, Motor Car Houses, Cycle Houses, Reading Rooms, Institutes, Churches, Hospitals, Sanatoria, Revolving Shelters, Boat Houses, Summer Houses, Stables, Kennels, etc., etc.*



# Boulton & Paul Ltd.

TELEGRAMS:  
BOULTON, NORWICH

TELEPHONE:  
NORWICH 851

Chief Office & Works  
**NORWICH**

**LONDON OFFICE:**  
**135-7, QUEEN VICTORIA ST.**  
**Telegrams: E.C.4**  
**BOUQUET, CENTRAL LONDON**  
**Telephone: CENTRAL 4642**

# LYSAGHT'S "ORB" Brand



# GALVANIZED CORRUGATED SHEETS.

Sheets bearing this brand are specially manufactured for use in the

## construction of NT BUILDINGS.

They are given a heavy protective coating of zinc to ensure long service.

Engineers and architects can rely upon these being the finest quality obtainable.

Manufactured by  
**JOHN LYSAGHT, LIMITED,**  
**BRISTOL.**





**THE LONDON ELECTRIC  
WIRE COMPANY and SMITHS  
LIMITED**

**The London Electric  
Wire Co. and Smiths  
LIMITED,**

Playhouse Yard, Golden Lane,  
LONDON, E.C. 1

FOR

RUBBER INSULATED WIRES  
and CABLES  
ARMATURE and MAGNET  
WIRES and STRIPS

ENAMEL INSULATED WIRES  
HIGH RESISTANCE WIRES  
TELEPHONE CABLES, WIRES  
and CORDS

AERIAL CABLES  
FLEXIBLE LIGHT NG CORDS  
BELL WIRES FUSE WIRES  
DYNAMO BRUSHES and ARC  
LAMP and BRUSH FLEXIBLES

**Frederick Smith & Co.**  
(Incorporated in the London  
Electric Wire Co. and Smiths  
Limited),

Anaconda Works,  
SALFORD, MANCHESTER

FOR

HIGH CONDUCTIVITY  
COPPER WIRE and STRIP  
HARD DRAWN H.C. COPPER  
LINE WIRE and TROLLEY  
WIRE

SPECIAL NON-FOULING  
SECTIONS  
PHOSPHOR BRONZE SPRING  
WIRE

BRONZE TROLLEY WIRE  
Maximum Tensile Strain and  
Durability  
SILICIUM BRONZE WIRE

Telephone: Clerkenwell 1588 & 9.  
Telegrams: "Electric, London."

Telephone: Manchester Central 4640.  
Telegrams: "Anaconda, Manchester."

Contractors to H.M. Government and to all the leading  
Electric Light and Telephone Companies.

Price Lists and Special Quotations on application.

CODES: { A B C 5th Edition. BENTLEY'S. WESTERN UNION  
(Univ. and S-Letter), and MARCONI.

**TIME SHEETS**

**DO YOU USE TIME SHEETS?**

And, if so, are you using the pattern most  
suitable for your business? J. C. KING,  
Ltd., have studied various systems of  
Time Keeping, with the result that at  
present they have the most useful and up-  
to-date stock of Copyright Time Sheet  
Patterns published. Also, and this is a  
point worth remembering. All Orders can  
usually be executed by return. No waiting.

Prices from 1/2 per 100, 9/4 per 1,000.

SEND POSTCARD FOR COMPLETE  
SET OF PATTERNS. SENT POST  
FREE AND FREE OF CHARGE.

Time Sheets, Pay Lists, Variation Sheets, Vouchers,  
Estimate Forms, Pay and Time Sheets specially adapted  
to the New Unemployment Act, Sand and Ballast Books,  
Order Books, Surveyors' Certificate Books, Transfer  
Books, Material Books, Contract Books, Prime Cost  
Books. In stock (ask for No. 60 List, Post Free) or can  
be ruled and printed to any pattern. Estimates Free,  
Proofs Submitted.

Time Books, Abstract Books, Sketch Books, Surveyors'  
Measuring Books, Auctioneers' Sale Books, Insurance  
Wages Book, Sectional Books ruled in inches and 8ths,  
10ths, etc.), Stationery and Account Books, suitable for  
Estate Agents and Property Owners.

Rent Collecting Books, Tenants' Rent Books, Order  
to view Books, Application Letters for Rent in Book  
Form, Rent Ledgers, Rent Receipt Books always in  
stock, or can be specially made to customer's own  
design.

Send us your requirements and we will en-  
deavour to please you in both Quality & Price.

J. C. KING, Ltd., 42/60 Goswell Road, E.C. 1.

Telephones:  
2317, 2318, 2181 Clerkenwell.

Telegrams:  
"Mainboom, London."

**DURESCO** WASHABLE WATER PAINT

*The FIRST in the Field. The FOREMOST, ever since.*

FORTY Years' Experience has stamped

**DURESCO**

as being the PREMIER Water Paint

Sole  
Manufacturers: **The Silicate Paint Co. & Co. Ltd.**  
J. B. ORR & Co. Ltd.  
CHARLTON, LONDON, S.E.





CURRENT LONDON PRICES—Continued.  
[COPYRIGHT.]

GAS AND STEAM PIPES.

Tubes and all fittings fixed with clips complete ...	Per Foot Run—							
	Gas				Steam Tubing			
	$\frac{1}{2}$ in.	$\frac{3}{4}$ in.	$1\frac{1}{2}$ in.	$2\frac{1}{2}$ in.	$1\frac{1}{2}$ in.	$2\frac{1}{2}$ in.	$3\frac{1}{2}$ in.	$5\frac{1}{2}$ in.
...	1/8	1/7	1/11	2/5	2/9	3/5	3/11	5/0

PLASTERER.

On Walls and Ceilings	Narrow Widths		Per Foot Run—				Flush or Staff
	Per Yard	Super.	Super.	Arris	Angle Quirk	Bead	
Render float and set in lime and hair...	3/8	0/7 $\frac{1}{2}$	0/3	0/4 $\frac{1}{2}$	0/2	0/8	
do. do. Stripite ...	3/10	0/7 $\frac{1}{2}$	0/3	0/4 $\frac{1}{2}$	0/2	0/8	
do. do. Portland ...	4/10	0/9 $\frac{1}{2}$	0/4	0/5 $\frac{1}{2}$	0/3	0/9	
do. do. Keene's ...	5/1	0/10 $\frac{1}{2}$	0/4	0/4 $\frac{1}{2}$	0/2	0/8	
Sawn lathing ...	2/3	0/3	—	—	—	—	
Metallathing ...	3/4	0/4 $\frac{1}{2}$	—	—	—	—	
Screeding in Portland ...	3/6	0/6 $\frac{1}{2}$	—	—	—	—	

Per Foot Run	Per lin. Girth	Mitres	Stop Ends
Mouldings in plaster ...	0/2 $\frac{1}{2}$	Equal to Value	Equal to $\frac{1}{3}$ d. of
do. do. Portland ...	0/4 $\frac{1}{2}$	of 1 foot of	a foot of
do. do. fibrous ...	0/4 $\frac{1}{2}$	moulding	moulding

Partitions	Per Yard Super.		
	2in.	2 $\frac{1}{2}$ in.	3in.
Concrete slab partition fixed ready for plastering ...	7/6	8/0	8/6

GLAZING.

Ordinary plate, glazed ...	Per Foot Super.		
	Up to 25ft.	From 25 to 50ft.	From 50 to 100ft.
...	7/0	7/2	8/0

Sheet Glass, glazed complete, per foot super.					
Sheet Glass	Figured	$\frac{1}{2}$ in. Rolled	Cast Glass	$\frac{1}{2}$ in. Wired	Metal bar
15oz. 1/8	1/2 $\frac{1}{2}$	1/7	1/3 $\frac{1}{2}$	1/6 $\frac{1}{2}$	1/6
...	...	...	...	...	...

PAINTER AND DECORATOR.

Distemper	Per Yard Super.			
	Wash and Stop	Once Distemper	Twice Distemper	Stipple
In common colours ...	0/7	0/6 $\frac{1}{2}$	1/1	0/3
In carmine or ivy green or similar ...	0/7	0/7 $\frac{1}{2}$	1/2	0/3
In scarlet, ivy green, or similar ...	0/7	0/8 $\frac{1}{2}$	1/5	0/3

Add per Yard Super. for the following				
If on Moulded Work 100%		If on Enriched Work 300%		If on Narrow Widths 0/3
Small Panels 0/3		Medium Panels 0/2		Large Panels 0/1

PAINTING.

Plain paint ...	Knot, Stop and Prime				Paint Coats				Per Yard Super.			
	1	2	3	4	Once	Twice	Stain	Varnish	Flattening	Enamel		
...	0/11 $\frac{1}{2}$	0/10 $\frac{1}{2}$	1/8 $\frac{1}{2}$	2/8 $\frac{1}{2}$	3/4 $\frac{1}{2}$	0/3	0/6	0/8	1/5	0/8	1/7	
Add for:—												
Moulded work	Add 20 per cent. to the above prices.											
Carved work	Add 150 per cent. to the above prices.											
Party colours	Add 2d. per yard super.											
Stippling ...	Add 4 $\frac{1}{2}$ d. per yard super.											
If on windows divided into squares ...	1/1	1/2	2/4	3/5	4/6	0/4	0/8	0/11	1/11	0/11	2/2	
If in narrow bands or on pipes ...	0/1 $\frac{1}{2}$	-1 $\frac{1}{2}$	-2 $\frac{1}{2}$	-4 $\frac{1}{2}$	-5 $\frac{1}{2}$	0/0 $\frac{1}{2}$	0/1 $\frac{1}{2}$	0/1	0/1 $\frac{1}{2}$	0/1 $\frac{1}{2}$	0/2	

PAPERHANGER.

Hanging only	Per Piece	
	Lining	Pattern
On walls ...	1/9	2/7
On stairs ...	2/2	3/2
On ceilings ...	1/11	2/10

BEAUDEXOL  
SUPER WATER PAINT  
IN 40 STANDARD SHADES

Other Reasons  
for Specifying.

IT IS

Beautiful  
Everlasting  
Artistic  
Uniform in shade  
Durable  
Economical  
Excellent bound  
Obliterating  
Lustrous

BROWN & CRITCHLEY, LTD.,  
LENZIE, SCOTLAND.

Telegrams: Walpa, Lenzie.

Telephone: Kirkintilloch 51.



**“Bitumastic”**  
Regd Trade Mark

**Contracts**

Low quotations usually receive favourable attention.

Painting contractors can submit low estimates for coating all kinds of structural erections with “Bitumastic.” Coloured Solutions, for the covering capacity varies from 2,000 sq. ft. to 3,500 sq. ft. (2 coats) per cwt., whilst the cost per cwt. is less than that of lead paints. Yet “Bitumastic” lasts five times as long and renders rust impossible.

Black, Red, Brown, Green, and Grey colours supplied. Write to Dept. “D” for full particulars.

**WAILES DOVE BITUMASTIC LTD.,**  
Newcastle-on-Tyne, London, Glasgow, Liverpool, Leeds, Cardiff, Hull, Manchester, Birmingham, Lowestoft, Dublin, etc.

Telephones in every office. Telegrams—“BITUMASTIC.”



A R Arch

# The ARCHITECT

UNIVERSITY OF ILLINOIS LIBRARY  
JUL 22 1921

A JOURNAL OF STRUCTURAL & DECORATIVE ART.

Proprietors:  
GILBERT WOOD & CO. LTD.

Editor:  
HERBERT W. WILLS, F.R.I.B.A.

Telephone: Holborn 4725.  
Telegrams: "Architonia, Fleet, London."

Registered as a Newspaper at the  
General Post Office.

Vol. CV.—No. 2740.

FRIDAY, JUNE 24, 1921.

Price 6d. By Post 7½d.

**Hobbs, Hart & Co.'s**

**SAFES**  
are the best.

76 CHEAPSIDE, E.C.

**Reinforced Concrete**

*Specialists in Design and Erection.*

**The CHIMNEY CONSTRUCTION  
& BOILER SETTING CO. LTD.,**  
7 Princes Street, Westminster, S.W.  
Phone: Victoria 6487. Grams: "Chimboستا, Phone, London."

**STONE FIREPLACES**

—OUR SPECIALITY—

**G. MATTHEWS, LTD.**  
**FIREPLACE SPECIALISTS**  
89 New Cavendish Street, London, W. 1.

**ELECTRIC LIGHTING.**

**EDEY & CO., 25 Warwick Lane, E.C.**

**LIFTS A. & P. STEVEN**  
**PROVANSIDE WORKS, GLASGOW.**

London Office: 70 Charles Street, Blackfriars Road, S.E.  
Manchester Office: 12 Charles Street.

**TITAN LIFTS**

20 HIGH HOLBORN, W.C. Telephone: Chancery 7061.

**FALDO'S  
ASPHALTE**

**THOS. FALDO & CO. LTD.,**  
WINDSOR HOUSE,  
KINGSWAY, LONDON, W.C.2

**PROFESSIONAL ANNOUNCEMENTS.**

**MR. R. M. PHILLIPS,**  
SURVEYOR, VALUER, AUCTIONEER,  
LAND AND ESTATE AGENT  
22 CONDUIT STREET, LONDON, W. 1.  
The acquisition, development, and disposal of large  
Building Sites in London a speciality.

**MODELS OF WORKS  
BUILDINGS  
ESTATES, etc.**  
Executed by **John B. THORP.**  
98 Gray's Inn Road (next to Holborn Hall),  
Phone Holborn, 1011. London, W.C. 1.

**HAND LIFTS**

a Speciality.

**J. CHRISTOPHER & SONS, 39/43 Clerkenwell Rd., E.C.**

**STEEL  
JOISTS**

for  
Building  
Purposes.

**DUNLOP  
AND  
RANKEN  
LTD.**

Iron and Steel Stockholders,  
**LEEDS.**

**PLYWOOD** of Every Known Kind in all  
thicknesses. Samples & List.  
**THE LONDON PLYWOOD MANUFACTURING CO. LTD.**  
384 OLD STREET, E.C. 2.  
Phone: LONDON WALL 8077. Wires: PLYMACO PHONE LONDON.

**DRY HARDWOODS.**

**R. M. Turner & Hunters, Ltd.**  
WANSBECK ROAD, VICTORIA PARK,  
LONDON, N.E.

**"JODELITE" (REG.)**

**THE ORIGINAL BRITISH WOOD PRESERVATIVE**  
for the Preservation of Timber, Ropes,  
&c., and the prevention of dry-rot  
and fungus, dampness in walls, &c.  
HAS STOOD THE TEST OF TIME (OVER 25 YEARS).  
Invaluable against the attack of White Ants & Teredo.  
Beware of Inflammable Imitations that are only stains.

**MANUFACTURED ONLY BY**  
**JOSEPH DEE & SONS, 5 Cross Street, MANCHESTER**  
CONTRACTORS TO H.M. GOVERNMENT.  
N.T. 1899 City. T.A. "DELIGHT, MANCHESTER."

**WM. OLIVER & SONS,**

LIMITED.

120 Bunhill Row, London, E.C.  
THOROUGHLY DRY WAINSCOT, MAHOGANY,  
WALNUT, TEAK, AND OTHER HARD WOODS.

**LIFTS** **SMITH, MAJOR & STEVENS**  
(Late Ltd.)  
Archibald Smith & Stevens.  
BATTERSEA, LONDON, and  
Abbey Works, NORTHAMPTON.

**HEATING**

**ROSSER & RUSSELL, Ltd.**

(Mayfair 5210)

37 Duke Street, Oxford Street, London, W. 1.

**WHATMAN**

Genuine Hand Made

**DRAWING PAPERS**

As used by Architects and  
Draughtsmen for over 150 years.

This watermark is your guarantee:—

**J WHATMAN**

Samples and price lists free from all  
Drawing Office Stationers.

Sole Sales Representatives:—

**H. REEVE ANGEL & CO., 9 Bridewell Place, E.C. 4.**

**LIFTS** **GIMSON & CO.**  
(Leicester) Ltd.  
ENGINEERS, LEICESTER.

**W. & R. LEGGOTT Ltd.**

**PANIC-BOLTS**

PANIC LATCHES & PANIC LOCKS.

**LOCKS & BRASSFOUNDRY**

90 & 91 High Holborn, LONDON, W.C.  
MANCHESTER. BRADFORD.



# HERE IS PROOF THAT STANDARD METAL WINDOWS COST LESS THAN WOOD

*Comparative average cost of Steel versus  
Wood Windows of equal opening capacity  
and light area.*

*Mess<sup>rs</sup> The Crittall Manufacturing Co. Ltd.  
Braintree, Essex*

*In accordance with your instructions I have  
carefully considered the above matter and in my  
opinion the comparative average cost of Standard  
Metal Windows as manufactured by your Company  
versus Deal Casements and frames as manufactured  
in well equipped Joiners Shops is 10<sup>2</sup>/<sub>3</sub> per foot superficial  
less for steel windows as against wood windows all  
fixed complete including external and internal finishings  
and in accordance with the Drawings, Specification and  
Bills of Quantities as prepared by me and priced out  
by four well known Builders of repute.*

*For the purpose of obtaining the average cost  
nine windows were selected of various designs  
suitable for a cottage and it was assumed that  
sufficient for 50 cottages would be required.*

*Henry Latta* Q.S.A.

*Quantity Surveyor,  
44, Bedford Row,  
W.C.1.*

*March, 1921.*

## CRITTALL BRAINTREE



# THE PATENT "FORESIGHT"

(PATENT No. 132674.)

**Low Fire Oven and  
Interior Combination  
Range with Open and Close Fire.**

The only guarantee for securing  
hot water and perfect cooking.

LISTS FORWARDED ON APPLICATION.

**Trivet swings over the  
Fire and forms a Hot  
Plate and Close Fire.**

Four saucepans can be boiled at the same time.

SOLE MAKERS:—

**SAMUEL SMITH & SONS, Ltd., BEEHIVE  
FOUNDRY, SMETHWICK.**

Phone: 56 & 57 Smethwick.

Established 1848.



## IMPERISHABLE

· Reliance Brand ·

## LEAD & BITUMEN DAMPCOURSE

SEARCHING examination and test by the Institute of Hygiene  
prove that "Reliance" Dampcourse is permanently damp-  
proof, unaffected by chemical action and temperature variation.

"Reliance" Dampcourse is pliable, unaffected by pressure, and will not squeeze  
out—points which, in conjunction with the foregoing qualities, justly entitle this  
dampcourse to the description "Imperishable."

The most practical and reliable dampcourse on the market. Apply for samples  
and details.

VULCANITE LTD.,  
BLACKFRIARS HOUSE,  
NEW BRIDGE STREET,  
LONDON, E.C. 4.

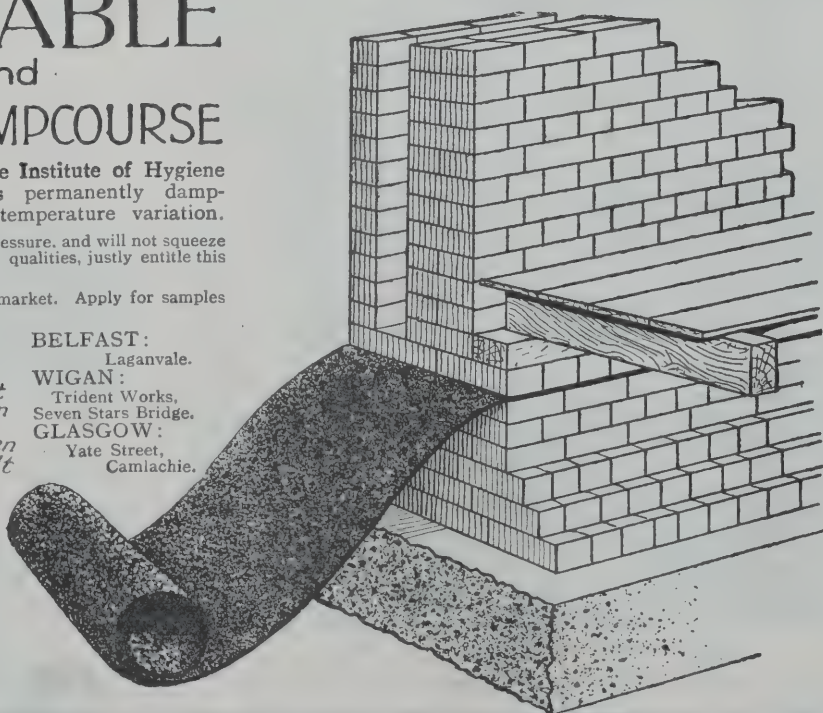
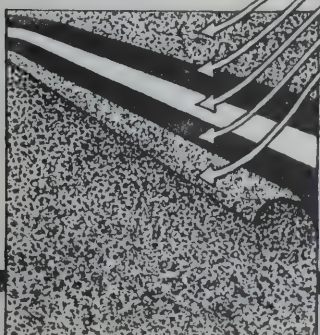
BELFAST:  
Laganvale.

WIGAN:  
Trident Works,  
Seven Stars Bridge.

GLASGOW:  
Yate Street,  
Camlachie.

Asphalt  
Bitumen  
Lead  
Bitumen  
Asphalt

Meets with  
Ministry of  
Health's  
specification  
for Damp-  
course.





# CASTOR

## THE ORIGINAL AND BEST CEMENT WATERPROOFER.

THE TEST OF A WATERPROOFING COMPOUND IS IN ITS PERFORMANCE UNDER WATER PRESSURE IN RELATION TO THE THICKNESS OF RENDERING. CASTOR IS PERMANENTLY EFFECTIVE AGAINST THE HIGHEST WATER PRESSURE WITH NO MORE THAN  $\frac{3}{4}$  IN. THICKNESS OF RENDERING.

IT SAVES MORE THAN IT COSTS.

### THE Castor Cement Waterproofing Co.

53 VICTORIA STREET, LONDON, S.W.1.

Telephone: Victoria 1433.

Telegrams: "Donoyd Vic. London."

And at 72 WATERLOO STREET, GLASGOW.

Contractors to the Admiralty, War Office, Principal Railways, Etc.



## CLOAKROOM FITTINGS

FOR SCHOOLS, PUBLIC BUILDINGS AND WORKS CANTEENS.

Our "ANGLO" System of fixing (Patent No. 103350) is CHEAPER, EASIER & QUICKER to fix, and is stronger and more rigid than the old method of screwed or riveted tubes.

Made in several sizes for Elementary or Secondary Schools.

Write us for Estimates and particulars.

## SHAW & CARTER, Ltd. (Founded 1799)

Engineers & Malleable Ironfounders,  
SHAWCAR WORKS, BULL RING, BIRMINGHAM.

London Office: 26 CHARING CROSS ROAD, W.C.2.



### The "Hot-Cross" Boiler

Is a Hot-Plate and Boiler combined.

Makers—

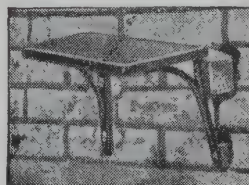
**A. Stevenson & Co.** 60-62 Newhaven Rd.  
EDINBURGH.

# RAWLPLUGS

A standard device to enable an ordinary screw to hold in any material

THE Rawlplug system of fixing obviates the old method of cutting a large and unsightly hole with a cold chisel and plugging it with wood wedged or cemented into position—a long and tedious process—unsatisfactory in the end. The result of using Rawlplugs can be seen by comparing the two illustrations

The Old Method.



Brick.

No skilled handling required. No damage to wall. Will hold half ton in brick. Invisible when in position.

**SAMPLE OUTFIT,**  
5s. 6d.; postage 6d. extra.  
100 Rawlplugs, Tool Holder  
and 2 bits, screws, etc.

shown here—the old—unsatisfactory and unsightly—the new—neat, permanent and strong.

The Rawlplug Method.



Brick

SEND FOR LIST AND TERMS.

**THE RAWLPLUG CO. LIMITED,**  
LENTHALL PLACE, GLOUCESTER ROAD,  
S. KENSINGTON, S.W. 7.



# W. F. SEDGWICK LTD

## PROCESS ENGRAVERS

• And Designers •

23, Gt NEW ST.  
LONDON, E.C.4.

TELEPHONE: HOLBORN 413.

WE SPECIALISE IN ARCHITECTURAL, ENGINEERING & MECHANICAL ILLUSTRATION

## MANHOLE COVERS *and* GULLY GRATES Delivered from STOCK

LARGE  
VARIETY  
OF  
PATTERNS.

INQUIRIES ALSO SOLICITED  
FOR SEWAGE LIFTING AND  
DISPOSAL APPARATUS, TANK  
FITTINGS AND GENERAL  
SEWERAGE IRONWORK.

ENGINEERS'  
OWN  
DESIGNS  
SUPPLIED.

*Our large output enables us to supply at favourable rates.*

## ADAMS-HYDRAULICS LTD.

YORK *and* LONDON

Telephone:  
47 YORK.

Telegrams:  
SANIFERA (all branches).

ADAMS HOUSE, OLD QUEEN STREET, S.W.  
Telephone: 935 VICTORIA.



## THE "AUSTRALIA" PATENT CONCRETE BLOCK MAKING MACHINE

is unrivalled in efficiency, simplicity and price, is strong, durable, fool-proof and easily portable.

*Approved by the Ministry of Health.*

May be inspected in operation at any time at the works, Lavie Mews, Portobello Road (Gas Works End), W. 10.

Works Telephone No. : PARK 2980.

Size of block 24 x 12 by any thickness up to 4½ inches.

**OUTPUT ONE PER MINUTE**  
with one unskilled workman.



Full particulars from 607 Salisbury House, London Wall, E.C. 2.  
Telephone No. : LONDON WALL 1981.

# CALLENDER'S "CALLENDRITE" DAMPCOURSE

A simple specification should ensure the use of an article guaranteed, tested, and approved.

As the Original Inventors of Pure Bitumen Dampcourse we have all the advantages which accrue from long experience.

**AGENTS IN ALL PARTS OF THE UNITED KINGDOM  
AND STOCKS CARRIED IN VARIOUS LARGE CENTRES**

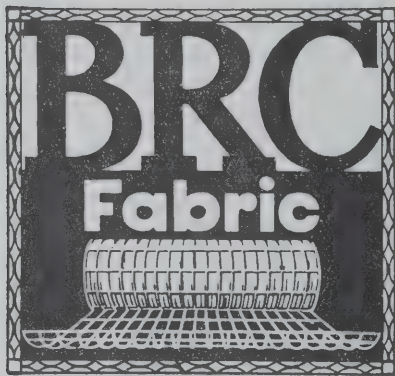
In all matters of Dampcoursing, quality and reliability will be ensured by the use of Material manufactured by

(Ask for CATALOGUE 3)

**GEORGE M. CALLENDER & CO. Ltd.**

Contractors to Admiralty, War Office, Office of Works, L.C.C., &c.

**25 Victoria Street, S.W.**



## BOULTONS

Contractors for

**TILING (Walls and Floor)**

**MARBLEWORK**

**MOSAICS**

INQUIRIES INVITED.

**GRANITE, Etc.**

**JOHN BOULTON & CO. Ltd.**

13 Eastcastle Street, OXFORD STREET, LONDON, W. 1

Telephone : MUSEUM 2350.

If it is

# Iron or Steel

Preserve Indefinitely with

# Cuirass Paint



**PRODUCTS, Ltd.**

69 Victoria St.,

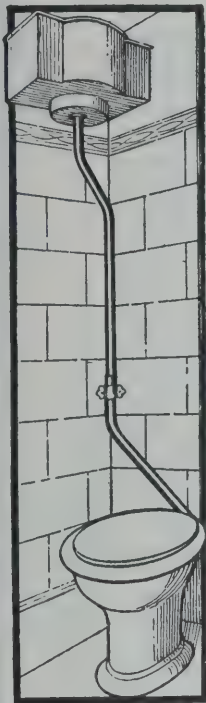
S.W. 1.

Phone : Victoria 5419.

*Cuirass Liquid Proofing waterproofs  
Concrete, Zinc, Walls, &c.*



## Seamless steel Flush Pipes



When economy is of such paramount importance as it is to-day, steel tubes have the advantage over the old lead piping, both in the fixing and in the initial cost. Our flush pipes are made to standard measurements and consequently are connected to the pan and cistern fittings with a minimum of labour.

We produce the tubing, bend and galvanise the flush pipes, and make the clips (plain and rubber-buffered) all in our own factory. This concentration of processes under one roof secures efficiency and economy which cannot be obtained otherwise.

**Accles & Pollock,  
Limited,**

Makers and manipulators  
of weldless steel tubing.  
Oldbury, Birmingham.

"From drawbench to galvanising vat."



No. 54.

## SANKEY'S BUILDING MATERIALS.

We shall be glad if you will send us your inquiries, and would ask you to put our name on your buyers' list for materials used in building construction.

Cement, Limes, Bricks, Partition Blocks, Tiles, Slates, Chimney Pots, Sanitary Ware of all kinds, Pipes, Gullies, Interceptors, Fire Bricks, Fire Clays, Fire Cements and Refractories of every description. Acid Resisting Goods and Acid Cements, also "**FIBERITE**" the root Fibre Board, Asbestos Sheets and Tiles. "**Sank**" brand Paints and Distempers, etc., etc.

We deliver by our own lorries round London, and by vessel or truck to any Port or Station in the United Kingdom.

18 WHARVES AND DEPOTS.

*Established 1857.*

**J. H. SANKEY & SON LTD**

HEAD OFFICE:

Telephone:  
EAST 1061.

Essex Wharf, Canning Town,  
London, E. 16.

*When the Bracket  
gives way*

Gutter has dropped—wall is soaked—paper mouldy—ceilings ruined—just because a rivet has pulled out of a bracket. You can avoid all trouble of this kind by fixing your gutters on

## "Standard" Facia Gutter Brackets

They are strongest where others are weakest, being stamped in one piece from heavy gauge steel, without rivets to rust or pull through. They cost no more than the ordinary brackets, but will last as long as the house, and save pounds on repairs. Made in sizes to take all standard gutters (half round and "O.G.") in ordinary, "Nottingham," and special "Rafter" patterns.

We hold enormous stocks, and can deliver upon receipt of order. Write to-day for Price List, "G.B." No. 57, to the "Largest Hardware House in the World's Workshop"—



**Parker, Winder  
& Achurch, Ltd.,**  
Broad Street,  
Birmingham.

"Service with Speed,  
Whatever your Need."

The

## RAVENHEAD

SANITARY PIPE & BRICK CO., LTD.

RAVENHEAD, ST. HELENS  
UPHOLLAND, Near WIGAN

Manufacturers of

Rustic Facing Bricks (Patent No. 13970).

"Rus" Walling (Trade Mark, "Rus").

Decorative Brickwork—Vases, Urns, Sundial Pedestals, etc.

Sand Faced Bricks. Clinker Pavors.

Metallic Wire-Cut—Building and Engineering Bricks.

Fire Bricks, &c. Fire Clays. Ganisters.



Ravenhead Works  
ST. HELENS

Telephone—  
No. 33 St. Helens

Scottish Agents:—Galloway Gibb & Co. Ltd., 18 Blythswood Square, Glasgow.



Upholland Works  
NEAR WIGAN

Telephone—  
No. 1, Upholland



## *Fittings that Beautify*

EDISWAN Electric Light Fittings have that rare quality that we call "distinction." They are designed by Artists to harmonise effectively with all styles of decoration. In addition we offer long experience and keen interest in the design of special fittings for any particular case.

*A visit to our Showrooms will convince you.*

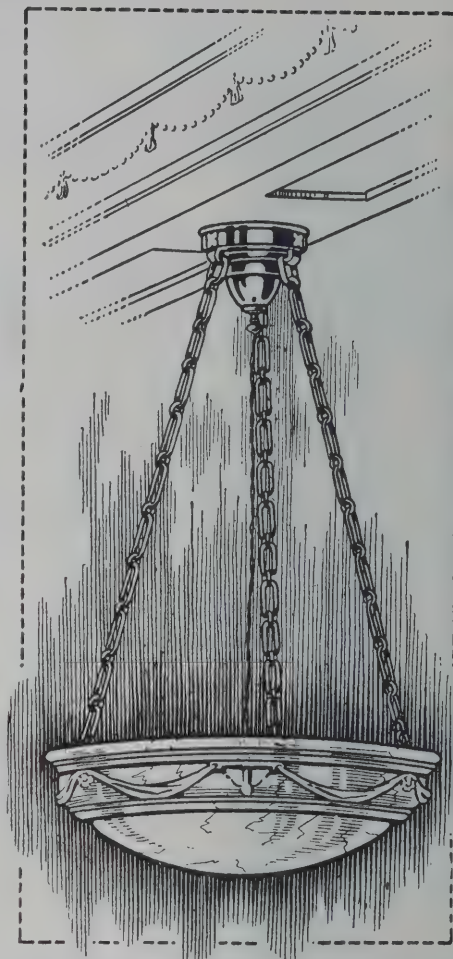
# EDISWAN

## DECORATIVE FIXTURES

THE EDISON SWAN ELECTRIC CO. LTD.

PONDERS END, MIDDLESEX.

London Showrooms:—123-5 Queen Victoria Street, E.C. 4.  
71 Victoria Street, S.W. 1.



VENTILATORS:  
COWLS:

WINDSOR  
SHEET  
METAL  
WORKS

GLASGOW  
11-41 COGAN STR  
POLLOKSHAW  
TELEPHONE POLLOKSHAW 158  
TELEGRAMS VENTILATOR GLASGOW

LONDON  
30-31 ST SWITHINS LANE EC  
TELEPHONE CENTRAL 8601  
TELEGRAMS IMPROBUS  
CANNON LONDON

SPECIALITIES

AUTOMATIC EXHAUST

VENTILATING SYSTEMS

SMOKE DUST & AIR BLAST PIPING

GENERAL SHEET METAL WORK



# CONCRETE REINFORCEMENT



Tobacco Factory, Liverpool.

Floors reinforced with B. R. C. Fabric.

For Messrs. the Imperial Tobacco Co., Ltd.

TO unroll one hundred feet of B. R. C. Fabric takes few men and few minutes. And when it is done it is done. Each wire definitely spaced; absolutely rigid. The other method is an affair of fingers and thumbs. Loose rods and loose wire. Spacing more or less accurate. Wiring more or less secure. The B. R. C. way is easier to do and infinitely better when done.

## THE BRITISH REINFORCED CONCRETE ENGINEERING CO. LTD.

Head Office: 1, Dickinson Street, Manchester.

Works: Trafford Park, Manchester.

Branch Offices: LONDON, Iddesleigh House, Caxton St., Westminster, S.W. 1; LEEDS, 3, Park Lane; LIVERPOOL, 36, Dale St.; BRISTOL, 47, Whiteladies Road; GLASGOW, 62, Robertson St.; DUBLIN, 12, Ely Place; BELFAST, Mayfair Buildings, Arthur Square.



**B·R·C**



# WATER SUPPLIES.

## ARTESIAN BORED TUBE WELLS.

C. ISLER'S IMPROVED SYSTEM of raising LARGE or SMALL quantities of WATER from any depth by IMPROVED AIR LIFT PUMPS, TURBINE and DEEP WELL PUMPS or any other kind of PUMP worked by any power.

As our experience extends over the whole of the United Kingdom we are in a position to offer sound advice as regards obtaining **WATER SUPPLIES** or improving existing ones.

We might state that we are the pioneers of the Air Lift system of pumping in Great Britain and have made numerous improvements in Deep Well Pumping Machinery, etc.

### List of some prominent buildings in London with C. Isler & Co's Water Supply Installations.

BANK OF ENGLAND.  
BALTIC EXCHANGE.  
BANK OF MONTREAL.  
BISHOPSGATE HOUSE.  
BRITISH BANK OF SOUTH AMERICA.  
BROAD STREET HOUSE.  
CANNON STREET HOUSE.  
DASHWOOD HOUSE.  
EAST INDIA CHAMBERS.  
LEADENHALL HOUSE.  
LAW UNION BUILDING.  
LONDON JOINT STOCK BANK.  
NORTHERN ASS. CO. Moorgate.  
OCEAN HOUSE, Thames Street.  
SALTERS' HALL, Cannon St.

SCOTTISH PROVIDENT BDGS.  
THREADNEEDLE HOUSE.  
WINCHESTER HOUSE.  
GRESHAM HOUSE.  
DALGETY & Co., Gt. St. Helens.  
SHELL BDGS., Gt. St. Helens.  
COX'S BANK, Waterloo Place.  
FINSBURY CIRCUS HOUSE.  
GUARDIAN ASSURANCE BDG.  
CORY & SONS BUILDING.  
PALLADIUM MUSIC HALL.  
HARRODS STORES.  
JOHN BARKER & Co. Ltd.  
OETZMANN & Co. Ltd.  
JAS. SHOOLBRED & Co.  
Etc., etc.

Complete Water Supplies for Banks, Insurance Offices, Warehouses, Breweries, Factories, Mansions, Estates, Farms, Waterworks, Gas Works, Electricity Works, Public Institutes.

Sites Inspected.

Geological opinions furnished.

Estimates given.

Steam, Oil and Gas Plants.

Write: **C. ISLER & CO. LTD.,**

Artesian Works: BEAR LANE, SOUTHWARK ST., LONDON, S.E.1.

Telegrams: "ISLER, LONDON."

Telephone: HOP 4460 (3 Lines).

Contractors to H. M. War Office, Admiralty, India Office, Ministry of Health, Crown Agents for the Colonies, etc., etc.

BIRMINGHAM BRANCH: ARTESIAN WORKS, 58 SUMMER ROW, BIRMINGHAM.

LEEDS BRANCH: 63 ALBION STREET, LEEDS. (Temporary Address.)  
And at LIVERPOOL.

# "IRONITE"

ENTIRELY BRITISH.

Registered Trade Mark.

BRAND CEMENTS  
for FLOORING and  
WATERPROOFING.

## ECONOMICAL METHOD FOR HOUSING & RECONSTRUCTION

Ironite and Cement Slurry—one coat applied with a brush absolutely waterproofs Breeze Blocks, Concrete, Brickwork, &c., against heavy water pressure and saves all the cost of rendering. Over 1½ million square yards already treated for H.M. Government, &c.

### "IRONITE"

#### Flooring

makes

Concrete

Floors

Wear Proof,

Dust Proof,

Water Proof,

Grease Proof.



"Ironite" Flooring laid at a Motor Repairing Shop.

For full particulars  
apply to—

**The Ironite  
Co. Ltd.**

(Managers: S. THORNELY  
MOTT & VINES, Ltd.)

Contractors to  
The Admiralty,  
War Office and other  
Government Depts.

11 Old Queen St.,  
Westminster,  
London, S.W.1.

Telephone: Victoria 5618,  
Telegrams:  
Thormotvin, Vic, London.



**FIRERESISTING FLOORS & ROOFS**

GRANITIC FINISH

WOOD BLOCKS

STEEL WORKS OAK ST GORTON

MAXIMUM STRENGTH MINIMUM COST

ROCK ASPHALTE

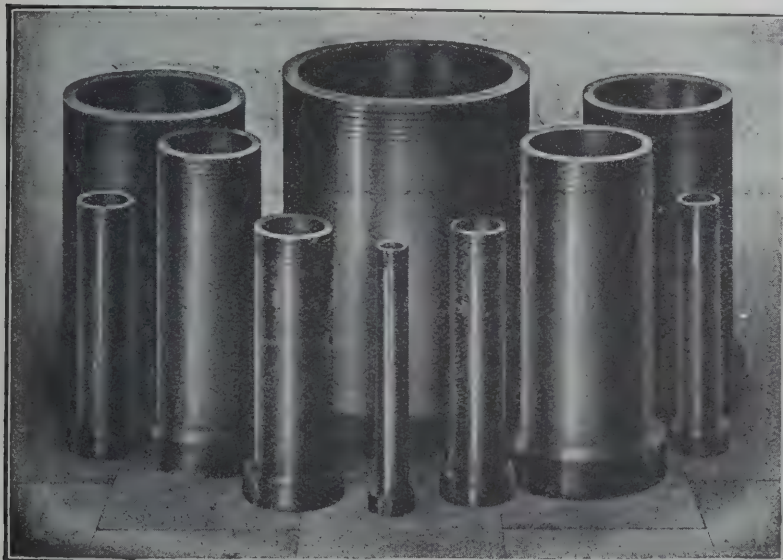
SAW MILLS SCHOOLS ST GORTON

CONSTRUCTIONAL STEELWORK.

**HOMAN AND RODGERS ENGINEERS** MARSDEN ST. MANCHESTER.

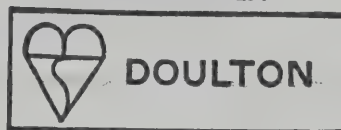
Telegraphic Address: NAMOH.MANCHESTER. Telephone No 637.

# DOULTON'S GLAZED STONEWARE PIPES FOR DRAINAGE AND SEWERAGE.



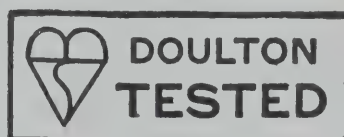
## BRITISH STANDARD PIPES

Supplied by Doulton & Co., Ltd.,  
are stencilled thus:—



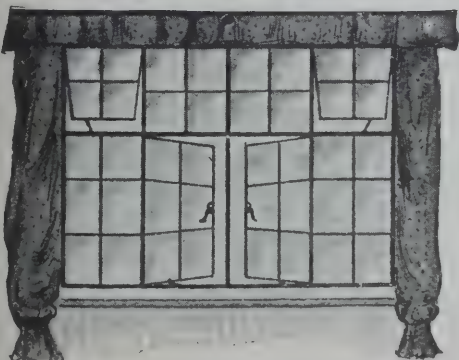
## BRITISH STANDARD TESTED PIPES

Supplied by Doulton & Co., Ltd.,  
are stencilled thus:—



**DOULTON & CO., LTD., LAMBETH, LONDON, S.E.**  
H.D. 77. Springfield, Dudley, and St. Helens, Lancs.

# THE STANDARD METAL WINDOWS CO.



## "COTTAGE WINDOWS"

Steel, Bronze, W. Iron

Weathertight — Cheap.  
**QUICK DELIVERY.**  
Accepted by Government  
Housing Department.

*Inquiries Solicited for all Types  
of Casement's-Sashes.*



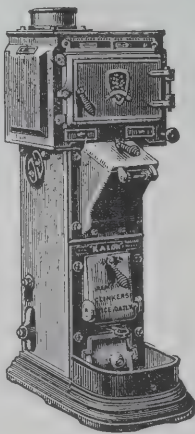
**ALLCOCK STREET, :: DERITEND :: BIRMINGHAM.**



# Plenteous Hot Water

## -simply and cheaply obtained

We are specialists in the manufacture of apparatus for the efficient heating of water by solid fuel. A house is never really a home unless really hot water is always available,—this matter therefore demands the most careful attention.



### The KALOR BOILER

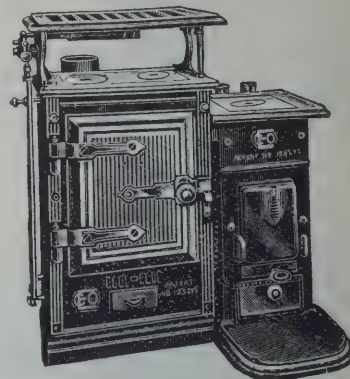
is an independent boiler which uses anthracite or coke for fuel and burns kitchen refuse. It is built on sane, sturdy lines and is entirely free from complications likely to cause trouble and disappointment. It may easily be attached to existing pipes. Very easily installed, the "KALOR" most effectively ensures that great domestic boon—really hot water night and day.

*We shall be very pleased to give you the fullest information as to the above apparatus and also on the "DON" and "OSHO" boilers which we make.*

**R. JENKINS & CO. LTD.,  
ROTHERHAM.**

### The ECO Combination

The illustration on the right shows the "ECO" Combination. This is a very satisfactory example of the utilisation of heat previously wasted. After heating the water in the boiler, the heat, before being allowed to escape, is diverted into and round the cooker which it pre-heats to a very appreciable extent. This saves 75% of gas consumption.



## "Everyday Uses of Portland Cement"

*Tells you—*

How to build a house or farm buildings

How to repair your fences and paths

How to make drain pipes

*Published by*

**The Cement Marketing Company Limited,**

8 LLOYD'S AVENUE, LONDON, E.C. 3.

PRICE **7/6** NETT

Post Free in Great Britain.

*Tells you—*

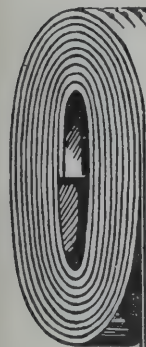
How to make hundreds of other

**EVERYDAY REQUISITES**

economically and artistically

FOURTH  
EDITION





# "FIBRAD"

## Asphalt Fibrated

Containing—80-90% Asphalt (99.5% Pure).

FOR DAMPCOURSING,  
ROOFING  
AND WATERPROOFING

In Rolls, 100 feet long, any width, for Damp-course, and Rolls, 216 square feet, for Roofing

Manufactured by a patented process which Toughens to the Maximum, is Durable, Pliable, and Fire-Resisting, this Material has no Felt Base to Decay.

*For Prices and Particulars apply :*

SUPPLIERS :

**Joyce, Maule & Co.**  
28 VICTORIA STREET, S.W. 1.  
Telephone : VICTORIA 1547.

SELLING AGENTS :

**Building Products Ltd.**  
44-46 KING'S ROAD, CHELSEA.  
Telephone : VICTORIA 2590

**Shell Brand**  
POLISHES BEST FLOOR GOES FURTHEST POLISH

together with a cloth-covered brush and very little energy, is all you really require to obtain a perfectly polished floor with a hard, shimmering surface which imparts dignity to its surroundings.

"Shell Brand" Floor Polish is not for wood floors alone, it is equally good for linoleums and furniture—whilst "Shell Brand" White Polish is the special preparation for composition, stone, and marble.

Write for sample tin to-day, you will receive it—free—within two days.

**Arch & H. Hamilton & Co. Ltd.**

(9) Possilpark, Glasgow.



# SPOTTISWOODE BALLANTYNE & CO. LTD.

Telegrams :  
Spottiswoode,  
Phone, London.

## PRINTERS

Telephone :  
Holborn 2260  
(4 Lines)

1 NEW STREET SQUARE, LONDON, E.C. 4

ALSO AT COLCHESTER AND ETON.

# YOU WANT—WE HAVE

Reduced Rates.—If Building Committees insist on "Reliance" Standard Metal Windows for their Housing Schemes, they not only secure low initial cost, but eliminate the burden of maintenance from the Rates.

## Modern Methods in Housing Schemes.

"Reliance" Standard Metal Windows are :—

Lowest in Price.

Easiest to Fix.

Cheapest to maintain.

YOU WANT for your building operations windows which can be "built in" as the walls go up, can be obtained in large quantities and at once, can be adapted to any sized window opening, will admit light and air to a maximum degree, and are cheaper than wood.

WE HAVE the exact thing you require, skilfully made by experts from the best materials.

## "RELIANCE" METAL WINDOWS

save time, labour and money, are easily handled, and are made on a practical Unit System.

*THEY LOOK' FINE*

*THEY ARE FINE*



### WILLIAMS & WILLIAMS, Ltd.,

Commercial Offices—  
Sardines House, KINGSWAY,  
LONDON W.C.2.

Head Office—  
Reliance Works,  
CHESTER.

Branch Offices—  
41 Canal Street, MANCHESTER.  
Cross House, Warrington Rd., NEWCASTLE-ON-TYNE.  
11 West Street, BELFAST.



## Dust Bins

### Sturdy and Efficient.

The galvanised iron dust bins we manufacture are strong and reliable. A number of corrugations give great strength, whilst there is no likelihood of refuse being retained in the corrugations because they are designed of just sufficient depth to give the required strength without being deep enough to retain rubbish.

Made of finest mild steel plates dipped in pure virgin spelter and fitted with a close-fitting lid, these dust bins are second to none in value.

WRITE FOR LISTS.

### OUR POLICY.

LOW PRICE  
GOOD QUALITY.  
QUICK DELIVERY.

### W. P. Butterfield, Ltd.

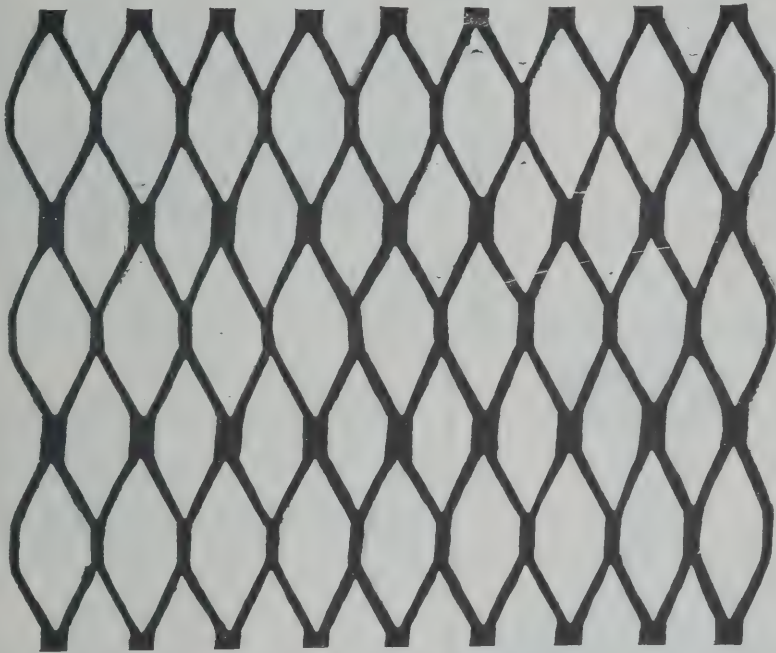
SHIPLEY,  
Yorks, England.

Grams : ... "Tadpole, Shipley."  
Phones : ... 35 & 353 Shipley.



# "BB" EXPANDED METAL LATHING

FOR PLASTERWORK.



ACTUAL SIZE OF MESH.

PLASTER DOES NOT  
FALL OFF EXPANDED  
METAL LATHING.  
WHY USE IMPORTED  
WOOD LATH—EX-  
PANDED METAL IS  
AS CHEAP, IS BETTER  
AND HOME-MADE.

SUPPLIED IN SHEETS 9ft. by 2ft.  
DIPPED ONE COAT BLACK ASPHALTUM.

STOCKS ARE HELD BY MERCHANT  
HOUSES IN ALL LARGE CENTRES.

## SPECIAL LOW PRICES

ARE BEING QUOTED FOR:—

No. 250, 26g. "BB" EXPANDED METAL LATHING, approx. weight  $2\frac{1}{4}$  lb. per yard super.  
No. 252, 24g. "BB" EXPANDED METAL LATHING, " " 3 lb. per yard super.

PURCHASABLE FROM THE PATENTEES AND MANUFACTURERS

# THE EXPANDED METAL CO. Ltd.

YORK MANSION, PETTY FRANCE, LONDON, S.W. 1.

WORKS:—WEST HARTLEPOOL.

WRITE FOR SAMPLES AND PRICES TO THE COMPANY (DEPT. R), OR  
DISTRICT REPRESENTATIVES:—

J. M. CARTMELL,  
8 Gordon Street, Glasgow.

E. A. COOKE,  
40 Belgrave Road, Rathmines, Dublin.

G. B. CORNER,  
1 Ox'ord Row, Leeds.

H. S. HOLFORD,  
Dome Buildings, Richmond, Surrey.

J. McNEILL,  
16 Chichester Street, Belfast.

B. J. MILLER,  
33 Brazenose Street, Manchester.

MITCHELL & SON,  
Palace Gate, Exeter.

A. E. PEARSON & SONS,  
21 Myton Street, Hull.

D. M. B. SMYTH,  
5 Dumfries Place, Cardiff.

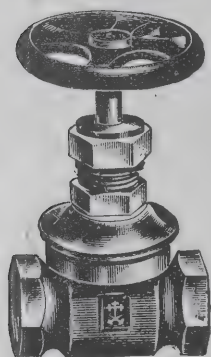
R. SPENCELAYH,  
47 County Buildings, Corporation Street, Birmingham.

HENRY WALKER & SON, LTD., Gallowgate Ironworks, Newcastle-on-Tyne.

UNSURPASSED for STRENGTH and DURABILITY.

CROWN

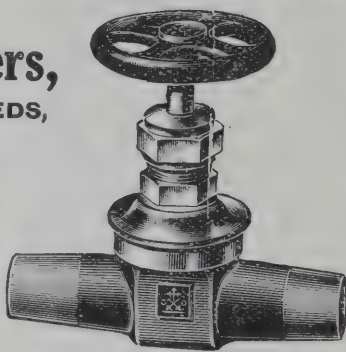
BRAND.

Telephone  
No. 29,Tel. Address:  
"CEMENT, RUGBY."E. W. BROOKS, M.C.I.,  
Manager.

**Whitley Partners,**  
RAILWAY WORKS, LEEDS,

Sole Makers of the ORIGINAL  
and only GENUINE PEET'S  
PATENT FULL-WAY STOP  
VALVE, in Brass and Iron.

Twenty-Three Different Sizes.



Phone: 6135 Central.

ESTABLISHED OVER HALF A CENTURY.

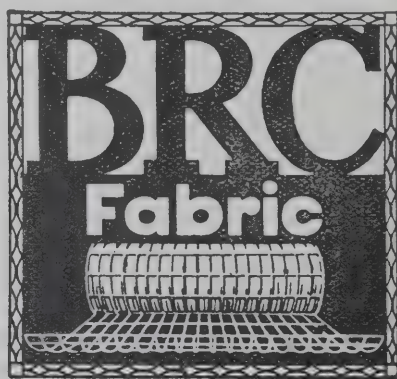
Telegrams: "RABBITRY."

## H. MORELL,

Manufacturer of English, and Importer of the Foreign Patent Washable Gilt, and Black  
and Gold and Carved Wood. Decorative Room, Dado and Picture Frame Mouldings.

Largest stock of Mouldings in the Kingdom. Export Orders promptly shipped. Write for new  
Illustrated Catalogue replete with a full range of Patterns. Many new and exclusive up-to-date  
designs (my Jubilee Edition) Free on receipt of business card. Mitre and Mount-cutting  
Mouldings, and every requisite for the picture Framer. Regilding and Restoring a Speciality.  
English and Foreign Glass.

17 & 18 Great St. Andrew Street, BLOOMSBURY, LONDON, W.C.  
Warehouses: 11, 12, 13 NEAL'S YARD; 41 NEAL STREET (in the rear).



## ROLLED MALLEABLE STEEL JOISTS AND GIRDERS

**I** Of various sizes up to 20 inches deep, with top and bottom Flanges, in usual  
proportion. Also all other descriptions of Iron and Steel for Engineers, Boiler-  
Makers, Ship Builders, Builders, &c., in Bars, Plates, Flitch Plates, Angles, Tees,  
Jack-stays, Channel, Hoops, Sheets, Rods, &c., to Specifications or from stock.

For Section Sheet, Prices, and other Particulars, apply to

## HENDERSON & GLASS,

Vuican Street Steel and Iron Warehouses, Liverpool.

STOCK OF ROLLED GIRDERS,

Of all sizes up to 16 inches deep, and assorted lengths, always on hand.

## GREAVES' PORTLAND CEMENT, Ground BLUE LIAS LIME and SELENITIC PLASTER.

Established 1840.

GREAVES, BULL & LAKIN, LTD.,  
HARBURY, WARWICKSHIRE.



JOHN SMITH & SONS,  
Midland Clock Works, DERBY.

Telegraphic Address:  
"Clocks, Derby."  
Telephone  
No. 569.

**CHURCH & PUBLIC CLOCKS**  
Makers of  
Clocks and Chimes  
for St. Paul's Cathedral,  
Beverley Minster, Truro Cathedral,  
Thurles Cathedral, Belfast Assembly Hall,  
and many others to Lord Grimthorpe's designs.

## MASONRY

Forward your inquiries to  
**JOHN WM. WILDGOOSE,**  
Industrial Works,

Tel. 182.

MATLOCK.

## "C.B." Fireproof Partitions

(BREEZE CONCRETE)

Manufactured under patents  
Enabling us to give you  
Maximum Strength with  
Minimum Cost.

Also

BUILDING BLOCKS,  
FIXING BRICKS,  
"C.B." FIBROUS PLASTER  
CEILING SLABS.

## CONCRETE BLOCKS, Ltd.,

Contractors to H.M. Office of Works,  
1 & 3a CHURCH STREET,  
CHELSEA, S.W. 3.

PHONE: KENS. 90.

## Stephens' Stains FOR WOOD

Oak, Mahogany, Rosewood, Wainscot, Ebony, Walnut  
and Satinwood.

Specimens and Prospectus post free from  
H. C. STEPHENS, ALDERSGATE STREET, E.C.



## BRITISH BUILDING STONE

The Largest Quarry Owners of  
**PORTLAND STONE**

Bath Stone from the most famous  
Stone Mine in Wiltshire.

**MONKS PARK**

OVER TWO MILLION  
CUBIC FEET OF  
SEASONED STONE  
IN STOCK.

**THE BATH & PORTLAND STONE FIRMS, LTD.,**  
BATH. LONDON. PORTLAND.

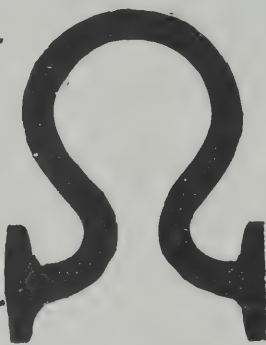
## GEORGE CLARK & SONS (HULL) LTD.

We carry a large stock of Pipes, Valves  
and Fittings of all classes, and can give  
prompt delivery. Special requirements  
estimated for.

*Enquiries Invited.*

**WATERHOUSE LANE, HULL**

Telegrams: CLARK, HULL. Estd. 1859 Telephone: 5003 (3 lines).



## FRANK SANDELL & SONS,

*Builders, Contractors, Decorators, and Joinery Manufacturers,*

Telephone: 206.

RAILWAY APPROACH, **WORTHING.**

## ROYAL FEMALE ORPHANAGE.

**BEDDINGTON (near CROYDON), SURREY.**

*Founded at Lambeth, 1788. Incorporated 1800. Removed to Beddington, 1868.*

PATRONS—HIS MOST GRACIOUS MAJESTY THE KING, HER MAJESTY THE QUEEN.  
PATRONESS—HER MAJESTY QUEEN ALEXANDRA.  
PRESIDENT—HIS GRACE THE DUKE OF PORTLAND, K.G.

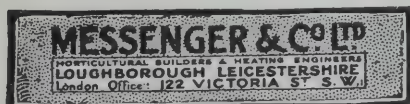
THIS ancient Asylum maintains and educates Fatherless Girls from all parts of Great Britain. They are admitted between the ages of 7 and 10, and at the age of 16 are placed out in respectable private families. They must in all respects be thoroughly sound and healthy. Elections half-yearly in June and December. Forms of nomination may be obtained at the Offices. New Subscribers to this old Charity are most earnestly needed.

Life Subscription, 2 Votes ... .. £10 10 0	Annual Subscription, 2 Votes... .. £1 1 0
Ditto 1 Vote ... .. 5 5 0	Ditto 1 Vote ... .. 0 10 6

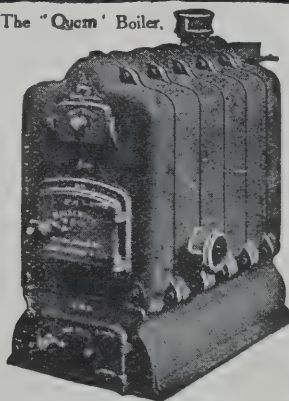
A Donation of 60 Guineas in one sum entitles the donor to the immediate presentation of one child. Fatherless girls are also received and paid for at the rate of £12 12s. per annum, with an entrance fee of £2 2s. pending election, or otherwise. Subscriptions most thankfully received and all information given on application to the Secretary.  
Offices—11 Buckingham Street, Strand, W.C. **BOUVIERE RISK, Secretary.**

**Specialists in HEATING**  
all classes of buildings by  
**HOT WATER.**

*Plans and Estimates prepared.  
Illustrated Lists free on application.*



The "Quon" Boiler.



**Please make a note in your books ! !**

The Telegraphic Address of "The Architect" is

**"ARCHITONIA, FLEET, LONDON,"**

and Telephone Number

**HOLBORN 4725.**

**GILBERT WOOD & CO., Ltd., 6-11 Imperial Buildings, Ludgate Circus, London, E.C.**

## EXPERTS in HEATING

and HOT WATER SUPPLY  
**HENRY WALKER & SON, Ltd.**  
*Gallowgate Iron Works,  
Newcastle-on-Tyne.*

**THE CLYDE STRUCTURAL IRON CO. LTD.**  
*Clydeside Ironworks, Scotstoun, Glasgow.  
MANUFACTURERS.*

**Iron & Steel Roofs, Buildings,  
Workshops, &c., &c.**  
**STEEL STOCK MERCHANTS.**

## MILBURN & PHILLIPS

MARLBOROUGH.

MANUFACTURERS OF MILBURN'S

**PATENT NOISELESS  
REVOLVING CHIMNEY COWL**

Patronised by HIS MAJESTY THE KING.  
**45,000 IN USE.**

FIRST QUALITY

HAND & ELECTRIC

**LIFTS**

**James Ritchie & Sons**

(THE HAND-LIFT SPECIALISTS),  
34 SURREY LANE, BATTERSEA, LONDON, S.W.  
Telephone: BATTERSEA 1802.

## Thatching & Reed Laying.

**J. G. COWELL, SOHAM.**

## INDIA RUBBER STAMPS

Of all Descriptions for

**ARCHITECTS, BUILDERS, &c.**

Also STENCIL PLATES, PUNCHES, &c

*Price Lists Free.*

**JOHN BERKLEY, 8 Livery St., Birmingham.**

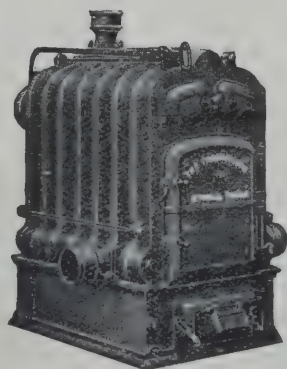
## DALARN ENGINEERING CO.

For Electric Bell, Light  
and Power Installations.

*ESTIMATES FREE.*

**OAKLEY RD., SMALL HEATH, BIRMINGHAM.**

The "THORNCLIFFE"  
**Cast Iron Sectional  
Boiler**



Made by  
**NEWTON, CHAMBERS & CO. Ltd.,**  
THORNCLIFFE IRONWORKS, near SHEFFIELD.  
ESTABLISHED 1795.





Our Spun Rivet Copper Sash Chains are made in various sizes and breaking strains. Supplied through any builder's merchant with axle pulleys and other fittings to suit.

**O**n the historical occasion of H.M. the King's visit to the City Hall, Belfast, to open the Ulster Parliament, we point with pride to the fact that this new seat of power—architecturally one of the finest buildings in the United Kingdom—is fitted throughout with

**Harcourt's Patent Spun Rivet Copper Chain for Window Sashes**

*David Harcourt Ltd.*

MOSELEY STREET,  
BIRMINGHAM.

## RELIEF DECORATIONS

IN FIBROUS PLASTER, CARTON PIERRE, AND WOOD.

**G. JACKSON & SONS, LTD.,**

Specimens of Ceilings, Cornices, Chimneypieces, &c., in the above material can be seen at  
**49 RATHBONE PLACE, LONDON, W.**

## "VERONESE"

Proprietors: C. S. Co. Ltd.

Ranelagh Gardens, Fulham, S.W. 6.

RELIEF DECORATIONS for CEILINGS and WALLS in FIBROUS PLASTER, FRENCH STUC, CARTON PIERRE and WOOD.

TELEPHONE:

PUTNEY 1979

## "MON'LITHCRETE"

AN INEXPENSIVE RIGID FLOOR,  
VERMIN PROOF AND EASILY  
AND RAPIDLY FIXED. LARGE  
STOCKS IN ALL SECTIONS READY  
FOR IMMEDIATE DELIVERY.

*For Estimates and Full Particulars apply to*

**FAWCETT CONSTRUCTION CO. LTD.**

**65 Victoria Street, S.W.1.**

Telephone No. VIC. 5846.

Telegraphic Address: ABEDNEGO, VIC. LONDON.





Establd. 1833.

The Hall Mark  
of Quality.

McNEILL'S

Original  
Patentees

FAMOUS

Lion  
Brand

FELTS

Highest  
Grade  
Roofingsand **PURE BITUMEN DAMPCOURSES**

In all the usual wall widths.

ARE THE BEST.

Widely adopted for Housing Schemes.

**F. McNEILL & CO. LTD.**

General Offices:

**4 SOUTH PLACE, E.C. 2.**

Telephone:

CLERKENWELL 1643 (2 lines).

Telegrams:

EYEBALL, LONDON

ROOFING, SARKING, SHEATHING, INODOROUS  
AND HAIR FELTS, FLEXSLATE, ROOFTITE,  
WEATHERITE AND MASTIC ROOFINGS, SLAG-  
BESTOS (McNeill's Patent Slagwool), STYXOL, a  
permanent Rustproof Bitumen Solution for Iron and  
Steel Work. **LION ROOFING** in rolls, 24 yds. by 1 yd.

**Rolling**

Other Specialities: Brass, Bronze Metal, Gun  
Metal and White Metal Shop Fronts, Sun Blinds,  
Collapsible Steel Gates, Plate-Glass Facias, Name  
Plates, Projecting Swing Signs, Gilt Lettering, etc.

**S.W.F.****Shutters**

S. W. FRANCIS & Co. Limited.  
64-70 Gray's Inn Road, London, W.C. 1.  
Telephone - Holborn 160  
Wires - "Fenestra, Holb. London."  
Agents for Scotland: CARSON & FORSYTH.  
16 Blythswood Square - GLASGOW.

**BOILERS. BOILERS. BOILERS.**

Great reduction in prices. Manufacturers of all sizes and designs for Heating  
Installation, Domestic Hot Water Supply, or for Housing Schemes.  
Quality unsurpassed. Delivery from stock.

Fire welding a speciality.  
Over 60 years reputation.  
Send for Catalogue.

**J. ASHTON RILEY LTD., Canal Boiler & Tank Works, Huddersfield.**

**Wm Duncan Tucker & Sons Ltd**  
ESTABLISHED - 1830

**TOTTENHAM · N · 15****SHOP FRONTS****STAIRCASES****LOBBIES****PANELLING &C.**

. . . FOR . . .

**JOINERY & MOULDINGS**

TELEPHONE: TOTTENHAM NOS 2.3. 1672 &amp; 1673.

**WINDOWS****COUNTERS****PARTITIONS****DOORS &C.****WALSHAMS Ltd.,****Architectural Photographers****60 Doughty Street, London, W.C.**

Telephone: 3600 Central.

Official Photographers  
to  
H. M. Office of Works.

Photographs taken in  
any part of the country  
— at shortest notice. —

FOR PARTICULARS OF PATENT

**TUBULAR SCAFFOLDING****AND CRANE STAGINGS**

Apply to

**THE TUBULAR SCAFFOLDING CO. LTD., 200 UPPER KENNINGTON LANE, LONDON, S.E. 11**

Phone: Hop 3136.



**ARCHITECTS** are asked to consult this page of  
**LEADING LOCAL BUILDERS**  
for names to include in their Lists for Tenders.

**G. H. Gibson & Sons,**  
BUILDERS AND  
CONTRACTORS,  
Telephone: 127 High Wycombe. **HIGH WYCOMBE.**

Telephone: SYDENHAM 998.

**Andrews & Andrews,**  
— BUILDERS AND CONTRACTORS, —  
DECORATORS, SANITARY ENGINEERS,  
**Crescent Works, BECKENHAM,**  
WORKS EXECUTED TOWN OR COUNTRY.  
PROMPT PERSONAL ATTENTION. **KENT.**

ESTABLISHED 1858.

**WELCHMAN & WISE,**  
BUILDERS AND DECORATORS,  
**38 ENNISMORE GARDENS,**  
**SOUTH KENSINGTON.**  
Telephone: Western 1061.

**Joseph Burnett & Son,**  
BUILDERS AND  
CONTRACTORS.  
**BIRTLEY, R.S.O., Co. DURHAM.**  
Telephone: Nat. Birtley 4.  
Telegrams: "Burnett, Birtley, Chester-le-Street."

**J. PARNELL & SON,**  
BUILDERS AND  
CONTRACTORS,  
Telephone: No. 19 RUGBY.  
Telegrams: PARNELL, RUGBY. **RUGBY.**

**G. Browning,**  
BUILDER AND  
CONTRACTOR,  
**CANTERBURY.**

**HORACE FINCH,**  
BUILDER and CONTRACTOR,  
SANITARY and ELECTRICAL  
ENGINEER.  
HIGH-CLASS DECORATIONS.  
Tel.: 3. **Haywards Heath.**

**R. COOK & SONS,**  
BUILDING CONTRACTORS,  
**CRAWLEY, SUSSEX.**  
Telephone: 16.

**To Let.**

HIGH-CLASS CONSERVATORY  
AND GREENHOUSE BUILDERS.  
**CARTER & HOWARD,**  
**88 GLADSTONE ROAD,**  
**WIMBLEDON, S.W. 19.**  
BRICKWORK, JOINERY, GLAZING, PAINTING, HOT WATER HEATING.

**Thomas Broad, Ltd.,**  
BUILDERS AND  
DECORATORS,  
**GREAT MALVERN.**  
Telephone: 11. Telegrams: BROAD, MALVERN.

**Geo. E. Everitt & Sons, Ltd.**  
BUILDING CONTRACTORS, SANITARY  
ENGINEERS & HIGH-CLASS DECORATORS,  
**SYDENHAM RD. NORTH,**  
CROYDON.  
Telephone: CROYDON 1703.

**William Simms,**  
BUILDER AND  
CONTRACTOR,  
**137-139 Brook St., Stepney,**  
**London, E.1.**  
Telephone No.:  
EAST 4190.

**STEPHENS & SON LTD.**  
**116 Fore St., EXETER.**  
Telegrams: STEPHENS LTD., EXETER.  
Telephone: 660.

**William Saint, Ltd.**  
Railway Building Works,  
**CAMBRIDGE.**  
Phone: 157.  
Telegrams: CONTRACTS, CAMBRIDGE.

**J. Gerrard & Sons (1920) Ltd.,**  
BUILDERS AND  
CONTRACTORS,  
**Swinton, Manchester.**  
Telephone: No. 261 ECCLES (4 lines).  
Telegrams: GERRARDS, SWINTON-LANCS.

**L. T. DADDS,**  
BUILDER AND  
CONTRACTOR,  
Tel.: 156. **CANTERBURY.**

**JENKINS & SONS, Ltd.**  
BUILDING CONTRACTORS, DECORATORS  
and SANITARY ENGINEERS,  
**Bournemouth and**  
**Southampton.**

**To Let.**

**ROBERT ILES & SON,**  
BUILDING CONTRACTORS, DECORATORS,  
and SANITARY ENGINEERS,  
**12A Pimlico Road,**  
**Pimlico, S.W.**

**Mussellwhite & Son,**  
CONTRACTORS,  
**BASINGSTOKE.**  
TELEPHONE NO. 2.

**G. E. Wallis & Sons, Ltd.**  
BROADMEAD WORKS,  
**MAIDSTONE.**  
TEL.: 31 MAIDSTONE.

**Crosby & Co. Ltd.**  
BUILDERS AND  
CONTRACTORS,  
Telephone: 191 FARNHAM.  
London Office: 63 FINSBURY PAVEMENT, E.C.2

**H. D. Bowyer,**  
Mackenzie Street,  
**Slough.**  
Tel.: 24.

**E. A. ROOME & Co. Ltd.**  
BUILDING CONTRACTORS,  
Crown Works, 7 Urswick Road,  
**HACKNEY, E.9.**  
Telephone: Dalston 280 & 139.

**Walter Lawrence & Son Ltd.**  
BUILDING CONTRACTORS,  
**19 Finsbury Square,**  
**London, E.C. 2.**  
Telephone: Clerkenwell 1467.

**S. N. SOOLE & SON,**  
BUILDERS AND  
CONTRACTORS,  
Dunstable Works, Richmond, Surrey.  
Tel.: 309 Richmond. Tels.: SOOLE, RICHMOND.

**To Let.**

**N. GREEN & CO. LTD.,**  
BUILDERS AND  
CONTRACTORS.  
New Broadway Buildings, rear of New Broadway,  
Telephone: 264 EALING. **EALING, W. 5.**

**W. H. GAZE & SONS, Ltd.,**  
BUILDERS AND  
CONTRACTORS,  
**11 HANOVER SQUARE, W.1.**  
Telephone No.: Mayfair 3973 Works: KINGSTON-ON-THAMES.



**HAROLD COOPER & CO.**  
**Smiths & Art Metal Workers**  
**FOR BUILDERS & ARCHITECTS,**  
**33-34 EAGLE ST., HIGH HOLBORN,**  
Telephone: 4903 Holborn. W.C.1

**S. EPSTEIN,**  
**BANK AND OFFICE FITTERS.**  
*Work Executed to  
Architects' Plans.*  
17 Phipp Street, Great Eastern Street,  
E.C. 2.

**Wood Panelling and  
Wood Mantel Pieces**  
*First-class Workmanship. Keenest Prices*  
**H. FRANKS & CO.**  
(Dept. C), 201 New North Rd. N.1.  
Telephone: NORTH 1792.

**ADOLPH KNUTTEL,**  
**Gravel Pits, Flitwick, Ampthill.**  
**AND BALLAST OF EVERY DESCRIPTION.**  
Quotations Given, D/D or F.O.R.

**W. WOODBRIDGE,**  
**Demolition Contractor,**  
All kinds of buildings bought to pull down.  
Refuse removed, and shoot supplied.  
**St. Albans Farm, STAINES ROAD,  
HOUNSLOW.**

**CONCRETE BUILDING  
LOCKS AND PARTITION  
SLABS.**

**Solid or Cored.  
Smooth or Rough-Faced.  
Large range of sizes.  
Only Machine Mixing.**  
Delivery by Road or Barge.  
**THE LONDON PHOSPHATE  
SYNDICATE, LTD.**  
Sussex Wharf, EAST GREENWICH.  
Telephones: 191 & 192. Telegrams:  
"Carbon, Cannon, London."

**DARGUE BROTHERS, LIMITED.**  
"Simplon Works," HALIFAX.  
Manufacturers of  
**Drawing Office Plant, Adjustable  
Drawing Tables, Photo Copying  
Machines,**  
**Section Liners & other Specialties.**

**WOOD AND GLASS  
PARTITIONS**  
(SLIDING & FOLDING)  
FOR SCHOOLS, OFFICES, ETC.  
**Top or Bottom  
Fittings.**  
Apply:—  
**KINGFISHER LTD.,  
WEST BROMWICH.**

**LEADING WELSH SLATE  
QUARRY OWNERS.**

**MAEN OFFEREN  
SLATE QUARRY CO., LTD.**

**OLD VEIN and other BLUE SLATES**  
from their own quarries at Blaenau-  
Ffestiniog.

= Address: =  
**Portmadoc, N. WALES.**

**THE DINORWIC or VELINHELI  
QUARRIES.**

**Best Second, and Third Slates.**  
**BLUE, RED AND GREEN.**  
**The World-famed New Quarry Slates.**  
Apply to **T. LLOYD WILLIAMS,**  
General Manager,  
Port Dinorwic, Carnarvonshire.

**PREMIER GLYNRHONWY  
SLATE QUARRY, LIMITED,  
LLANBERIS.**

**ROOFING SLATES:** Considered  
by good judges to be the best in  
Carnarvonshire.  
Address: Llanberis, North Wales, and  
Basildon House, Moorgate Street, E.C. 2.

**MAYFAIR WINDOW  
CLEANING & DECORATING  
CO. LTD.**

9 & 10 Crantham Place, Park Lane, W.1.



**PAINTING  
DISTEMPERING  
LIME AND WHITE-WASHING**  
by the  
**MOTOR SPRAY SYSTEM.**  
**BETTER  
QUICKER  
CHEAPER**  
than by hand.

Estimates Free.

Phone MAYFAIR 4430

**£5 TO £5,000 ADVANCED**

on simple Promissory Notes. No bills of sale taken,  
and strictest privacy guaranteed. First letters of appli-  
cation receive prompt attention, and transactions carried  
out without delay. Terms mutually arranged to sui-  
borrowers' convenience. Special quotations for short  
periods. Apply in confidence to:

**Advances**

**Corridor Chambers  
LEICESTER.**

**PLUMBING,  
HEATING, LIGHTING,  
SANITARY WORK**  
ON LATEST IMPROVED PRINCIPLES.  
Fire Mains in accordance with L.C.C. regulations.  
New, Alterations or Repairs. Town or country.  
Labour or Labour and Material.  
**PENFOLD,**  
3 Eden Road, Walthamstow, E. 17.

**"COATOSTONE"**

Effect of Natural Stone. Waterproof. Any painter can use it.  
PRICE LISTS, ETC., FROM THE MAKERS:  
**THE COATOSTONE DECORATION CO.**  
8a Little James St., Gray's Inn Rd., London, W.2. 4

**T. L. B. Red Rubbers  
Sand-Faced Facings.**

**BRICKS and TILES.**

**T.L.B.** **W.K.\***  
Reg. Trade Mark. Reg. Trade Mark.

**SOLE MAKERS:**  
**Thomas Lawrence & Sons,**  
Bracknell, Berks.

Telephone: No. 14 Bracknell. Telegrams: Lawrence, Bracknell.

**Reading Mercury and Berks County Paper.**  
GENERAL ADVERTISER FOR BERKS, BUCKS,  
HANTS, OXON, AND WILTS. Saturday, 3d.  
Established 1728. Enlarged January 1897.

**Reading Mercury and Berks County Paper.**  
Circulates in Reading, Newbury, Hungerford, Wantage,  
Wallingford, Abingdon, Oxford, Faringdon, Marlow,  
Maidenhead, Blackwater, Bracknell, Henley, Woking-  
ham, Kingsclere, Thatcham, Camberley, Ascot,  
Windsor, Slough, Mortimer, Pangbourne, Sandhurst,  
Swindon, Basingstoke, Wycombe, Staines, &c.

**Reading Mercury and Berks County Paper.**  
Advocates the interests of agriculture and commerce and  
all measures for the social, moral, and intellectual im-  
provement of all classes. Relied upon by all parties  
for the accuracy and impartiality of its reports of  
public and political proceedings and for its complete  
local and general information.

**Reading Mercury and Berks County Paper.**  
Offers unusual advantages as an Advertising Medium,  
since, from its vastly increased and wide circulation,  
and its influential position among the English News-  
papers, Advertisements are brought under the notice  
of thousands of readers each week. All communications  
should be addressed to  
The PUBLISHERS, "MERCURY" OFFICE, READING.

**DRY ROT**

and other forms of wood rot can be  
prevented by treating wood with  
2 per cent. DYPHENIN solution,  
acknowledged by the highest authori-  
ties to be the most effective means  
against this pest. DYPHENIN is  
sold in ½-lb. and 1-lb. jars, 5/- lb.;  
10-lb. and 60-lb. drums, 4/- lb.

Full particulars sent on request.

Sole  
Manufacturer, **E. R. BUGGÉ, Works,**  
**WESTCOMBE HILL, London, S.E. 3.**

**BRYANT & SONS, Ltd.**

**Ventilating  
Engineers.**

Manufacturers  
of

**ROOF & INLET  
VENTILATORS.**

42 Queen Anne Rd.,  
St. PHILIP'S, BRISTOL.



DESIGN

**Calorifiers**

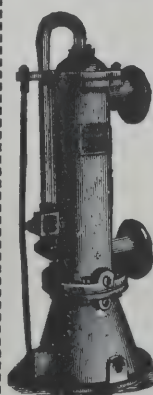
(ROW'S PATENT)

**For HEATING  
BUILDINGS &  
BATHWATER**

Copious Supplies  
Uniform Temperature

**AUTOMATIC  
STEAM CONTROL**

Cheaper than any other  
System.



**Steam Traps, Reducing Valves,  
Feed Water Heaters, &c.**

**ROYLES Ltd.**  
**IRLAM, near MANCHESTER.**



## Modern Glasshouses

replete with the latest improvements  
in construction, ventilation, heating, &c.

*Architects' Designs carefully carried out.*



**ESTIMATES FREE.**

Special Catalogue, with numerous designs,  
on application.

**MESSENGER & CO. LTD.**

HORTICULTURAL BUILDERS & HEATING ENGINEERS  
LOUGHBOROUGH LEICESTERSHIRE  
London Office 122 VICTORIA ST. S.W.

## Trade after the War

*If you contemplate erecting a*

## NEW WORKS or FACTORY

In an ideal position with the advantage of

CHEAP POWER

GOOD WATER SUPPLY

HEALTHY

SURROUNDINGS

SIDING

ACCOMMODATION

EFFICIENT TRANS-

PORT FACILITIES

Write Great Central Railway Publicity Office,  
216 Marylebone Road, London, N.W. 1  
stating your requirements.

**SAM FAY, General Manager.**

## G.E.C. Electric Light Fittings.

The General Electric Co. Ltd.,  
has had extensive experience in  
the design and manufacture of  
Electric Light Fittings.

Their Designers and Illuminating  
Engineers have made a special  
study of the problems connected  
with all branches of illumination,  
and their services are offered free  
to interested clients to give infor-  
mation, make suggestions and  
prepare schemes in order to obtain  
any illuminating value required  
under specific conditions.



**THE GENERAL ELECTRIC CO. LTD.**

Head Office: Magnet House, Kingsway, London, W.C. 2.

Phone: Regent 7050 (50 lines). Grams: "Electricity, Westcent, London."

NOTE:—The London Showrooms of the Company are now at Magnet House,  
Kingsway, W.C. 2.

*The Lantern illustrated is  
a choice example of G.E.C.  
Fitting in Cast Solid Bronze.  
Weight 10 cwt. (Side View).*



## FOR SALE. Materials.

**WOOD BLOCK FLOORING, PARQUET**  
FLOORING, and END-GRAIN PAVING fixed com-  
plete in any locality. **PARQUET AND HARDWOOD**  
FINANCING FLOORS a speciality. Send particulars  
of requirements to STEVENS & ADAMS, LTD., Victoria  
Works, Point Pleasant, Wandsworth, S.W. 18. (Tele-  
phone Putney 1700).

**BREEZE PARTITION SLABS.**—Large  
quantity well-matured Slabs, 2 in., 2½ in., and  
3 in., for immediate delivery at competitive prices.  
McLEAN, Coven, near Wolverhampton.

**DEMOLITION OF H.M. AIR STATION.**  
For Sale at half price of new, large quantity of  
9 in. by 4 in. **STEEL JOISTS**, 8 in. by 3½ in.,  
channels, 3 in. by 5 in., and other useful size angles;  
also a quantity of Corrugated Iron. Apply CARKEER  
SONS, Ltd., Redruth.

**FOR SALE, 43,000 T.L.B. 2½ in. Mixed**  
**COARSE RED HAND-MADE SAND-FACED**  
**PACINGS**, ready for immediate loading. Full par-  
ticulars, T. KNIGHT & SONS, Builders, Chertsey.

**OLD LONDON PAVING, GRANITE**  
**SETTS and NEW YORKSHIRE PAVING.** Large  
quantities in stock. Low prices for large quantities.  
Particulars of Geo. CLOKE, Contractor, Railway Wharf,  
Blackburn Road, West Hampstead, N.W. 6.

**TO BUILDERS, ROADMAKERS, ETC.**  
**HOGGIN, SAND, GRAVEL, SHINGLE.**  
Placed on Rail at lowest prices. Write C. STUB-  
BINGS, Mid-Essex Pits, Broomfield, Chelmsford, Essex.

**20,000 2 in. to 2½ in. best quality ARCH**  
**FIREBRICKS** at £8 10s. per 1,000. These Bricks  
have been built into furnaces, but have never been burnt.  
500 36 in. by 16 in. by 3 in. **FIRE LUMPS**, new, at  
£8 9d. each. 10,000 **BROWN GLAZED BRICKS**, including  
a quantity of Bullnose, second-hand, but not chipped, at  
£8 10s. 1,000. 4,000 **BLOOD-RED GLAZED BRICKS** at  
£8 10s. 1,000. 10,000 6 in. by 6 in. new **BLUE**  
**QUARRIES** at £2 10s. 1,000. All F.O.R. in full truck-  
loads East London Station, or can be quoted in smaller  
quantities delivered by road. Write Box 325, Office of  
"The Architect."

**SELF-FLAGS, GREY-SLATES, PAVINGS,**  
**EDGINGS, STEPLIDS, STRING, WALLSTONES,**  
etc., Cocktals. R. H. RUSHWORTH, Hill Top, Light-  
cliffe, Yorks.

**BEST BUILDING SAND** at pit or on rail,  
Clivst Heath Sandpit, near Exeter. For terms,  
apply E. L. COLESTON, Bishop's Court Estate, North-  
mole, Dulverton.

**ADVERTISER** can supply enormous quantity  
of **GROWING TIMBER** of all kinds, to the value  
of over £1,000,000, and will be pleased to put anyone  
replying to this advertisement directly in touch with  
actual owner. Box 450. Office of "The Architect."

**STONEWORK.**—Bramley Fall Stone,  
machined or finished. Moderate prices. BRIGGS  
& Co., Quarry Owners, Horsforth, Yorks.

## Plant, etc.

**SCAFFOLD ROPES, 18 ft. ½ in. dia. Manila**  
Rope. Low price. TOWNSON, 6 Fraser Street,  
Bradford, Yorks.

**STONE BREAKERS, FINE CRUSHING**  
**ROLLS, CONCRETE and TAR MACADAM**  
**MIXERS, FRICTION HOISTS, SAWBENCHES.** Let  
us send particulars and prices. FREDERICK PARKER,  
Dept. T, Dun's Lane, Leicester.

**IMPORTED & NATIVE POLES 15/35 ft.**  
Quebec Spruce Boards. Native Putlogs, 6 ft. by  
3 in. by 3 in., delivered nearest railway station. Also  
farrar Scaffold Cords and Steel Wire Ropes. Stocks  
at London, Hull, and Thornton Heath. J. HOGGS,  
92 Victoria Street, S.W. 1. Phone, Victoria 1842.

**PUMPS for every service.**—Hand or power  
driven and for dealing with varying quantities of  
muddy and sandy water, sewage from cesspits, &c.,  
also for irrigation, water supply and fire purposes.  
Illustrated catalogue post free. THE PHENIX ENGI-  
NEERING COMPANY LTD., Chard, Somerset.

**MORTAR MILLS and SAW BENCHES.**  
New Immediate delivery. Keen prices. As sup-  
plied the leading Corporations and Contractors. May we  
supply you? Particulars gladly. THE ENGINEERS'  
SUPPLY Co., Bradford Road, Shipley.

**FOR SALE.**—Immediate Delivery of Putlogs,  
Scaffold Boards, Poles, Ladders, Trestles, Barrows,  
Hods, Fencing Material and H.G. Timber, cut to  
specification. Prices, etc., H. L. COCKLE, 296 Vaux-  
hall Bridge Road, Westminster, S.W. 1. Phone:  
Victoria 8606.

## Office.

**FOR SALE, 4 Antiquarian Westminster**  
**DRAWING TABLES** (by Haldens).  
1 40 in. by 27 in. D.E. PRINTING FRAME and  
PEDESTAL.  
1 D. E. ZINC BATH and STAND.  
All in good condition.  
Call or write: A. J. LANSDELL, 14/16 Cockspur  
Street, S.W. 1.

**SEVERAL absolutely new DEED BOXES**  
for Sale. Keep your private papers in Deed  
Boxes, and you know where to find them. Prices and  
particulars on application to Box 399, Office of "The  
Architect."

## FOR SALE. Office.

### SCARCE REPRINTS:

Langley: "Builders' Jewel," 4s. 6d.  
Langley: "Treasury of Designs," 4s. 6d.  
The two bound in one, 10s. 6d.  
JOHN TIRANTI & CO.,  
MAPLE STREET, LONDON, W. 1.

### SYSTEMS FOR TRADE CONSTRUCTION

Analysis, Account Books, Standard stock rulings,  
from 1 to 37 cash columns, size and thickness to meet  
the requirements of small or large businesses. Prices  
from 4s. 5d. upwards. Specimen rulings free of charge  
and post free. J. C. KING, Ltd., Account Book Manu-  
facturers, 42 Goswell Road, London, E.C.

**TYPEWRITING PAPERS 2s. 6d. per ream**  
and upwards. Why pay 4s. 6d. or more elsewhere?  
Samples free of charge and post free. J. C. KING,  
Ltd., 42 Goswell Road, London.

**UNEMPLOYMENT and National Insurance**  
Wages Books. Specially designed to meet all the  
requirements of both the above Acts. Prices from  
2s. 9d. each. Send for a sample set of rulings post  
free from J. C. KING, Ltd. (F. Dept.), 42 Goswell Road,  
London, E.C. 1.

### "DETEX" PEN CARBON DUPLICATE

BOOKS save time, money, and temper. Two  
written copies at one writing. From stock for imme-  
diate use, or specially manufactured, printed with  
your own name, trade, and address. Send TO-DAY  
for specimen leaves and prices, free of charge and  
post free. J. C. KING, Ltd., 42 Goswell Road, London.  
Agent wanted for Coventry and district.

### WAGES ENVELOPE BAGS.—Send to-day

for free carton set of 35 specimen samples of  
various sizes, quantities, and standard stock printed  
wordings, post free. Plain from 4s. 6d.; stock printed  
wordings from 10s. 6d. per 1,000 upwards. Trans-  
parent Wages Bags: Plain, from 16s. 6d.; standard  
stock printed wordings from 21s. 6d. per 1,000 up-  
wards. J. C. KING, Ltd., 42 Goswell Road, London.

### TIME SHEETS.—For immediate use, sup-

plied from stock, 1s. 2d. per 100, 9s. 4d. per 1,000.  
Copyright forms ruled and printed for Daily, Weekly,  
and Foreman's Time Sheets. Also Workman's Time  
Sheets and Pay Sheets, showing where employed on  
outdoor work, travelling and other expenses. Variations  
of Work Forms, Material Sheets, Contractors' Record  
of Carting. Specimens free of charge and post free.  
J. C. KING, Ltd., 42 Goswell Road, London, E.C.

### LOOSE LEAF LEDGERS, 15s. 6d. EACH.

Size 5 in. by 8 in. Complete with 200 leaves  
and index. Startling value. Inspect Ledger free of  
charge. Illustrated price lists of all other sizes free of  
charge and post free. J. C. KING, Ltd., 42 Goswell  
Road, London, E.C.

### TELEPHONE CHARGES are now very dear,

and Telephone Calls should be checked. King's  
"PHONECHEX" BOOK gives a perfect check of 5,000  
calls, properly numbered and classified, for 4s. 9d. No  
business house should be without one. Sample book can  
be had on approbation, or specimen leaf will be sent  
post free for the asking. J. C. KING, Ltd., 42 Goswell  
Road, London, E.C. 1. Agent wanted.

## Miscellaneous.

### HUT.—FOR SALE, ARMY MESS HUT,

in excellent condition, 110 ft. by 28 ft.; corru-  
gated iron walls and roof, lined 3-ply throughout, wood  
floor, 4 pairs doors, 20 windows. Standing near Sallis-  
bury. Price £140. Bargain. BOYD & CO., Castle  
Cary, Somerset.

### TOWER CLOCK (Seven Day) by Gillett &

Johnson; recent date; 11-ft. circular glazed dial.  
Inspection by appointment. S. B. SILVESTER, Sur-  
veyor, 252 High Holborn, W.C. 1.

### GLASS, GLASS—Globes of all kinds, for all

purposes, Bowls, Shades, Reflectors, and General  
Glassware, Glass Decorating, Frosting, Lettering,  
Embossing, Engraving, and Drilling. Mail requirements,  
we can supply. BY THE STANDARD GLASS COMPANY,  
171 New North Road and Fairbank St., N. 1.

### WHY KEEP THINGS YOU DO NOT

REQUIRE? Turn them into cash! You may have  
in your works or depot machinery and goods for which  
there is a great demand, but which are of no service  
to you. Make use of this For Sale Column, the  
charge is 2s. 6d. per first two lines and 6d. per line  
after (averaging eight words to the line), 10 per cent.  
deduction for six insertions. Please note that remit-  
tance must be sent with instructions.

### FOR SALE.—REEDS for BUILDERS or

THATCHERS, in truckloads, F.O.R. R. C.  
LOCKETT, Horning, Norwich.

### DUST SHEETS—STOCKED in SIX SIZES,

from 9 ft. by 6 ft. W. MOORE &  
Co., Lauderdale Buildings, Aldersgate Street, London,  
E.C. Telephone 5184 City.

### CLEANING REQUISITES—FLOOR CLOTHS,

Dusters, Swabs, Sponges,  
Chamols, etc. W. MOORE & Co. Write, or 'phone as  
above.

## SITUATIONS VACANT.

**ASSISTANT ARCHITECT** wanted for East.  
About 30. Single. Knowledge of Renaissance  
design. Commencing salary £600. TRUMAN & KNIGHT-  
LEY, LTD., Employment Agents, 61-2 Conduit Street,  
W. 1. No preliminary fee.

**OLD ESTABLISHED Firm, Dampcourse**  
and Roofing Manufacturers, desire Representative  
commission basis, for York and district, Hull and dis-  
trict, Oxford and surrounding counties, Cumberland and  
Westmoreland. Apply No. 554, Office of "The Archi-  
tect."

## SITUATIONS WANTED.

**ARCHITECTURAL DRAUGHTSMAN.**  
Detailist, and Quantity Surveyor, disengaged.  
High-class Designer and Perspective Artist. Terms  
moderate. TEMPLE, c/o 24 Harrington Square,  
London, N.W. 1.

**ARCHITECTURAL DRAUGHTSMAN and**  
**A QUANTITY SURVEYOR**, disengaged. High-class  
Designer, Draughtsman, and Detailist. Artistic per-  
spectives, quantities. ARCHITECT, c/o 60 West Street,  
St. Philip's, Bristol.

**DRAUGHTSMAN, Ex-Service Man (30),**  
10 years' experience, student R.I.B.A., wants em-  
ployment, and is open to assist Architects and Builders  
with their drawings at a moderate charge. Box 477,  
Office of "The Architect."

**GENERAL FOREMAN, CLERK OF**  
**WORKS, or BUILDER'S ASSISTANT** seeks re-  
engagement. Practical, competent; experienced in  
management of erection by direct labour of large number  
of houses, making new roads, drainage, etc. Also in  
work carried out by various Contractors. E. F.  
HUTSON, 11 Priory Hill, Dover.

**CLERK OF WORKS or GENERAL FORE-**  
**MAN** seeks re-engagement. Any class of work.  
Twenty-five years' experience as Supervisor. Aged 49.  
T. ALLEN, 38 Edinburgh Road, Reading.

**MANAGER or GENERAL FOREMAN** seeks  
post. South Coast or country preferred. Thirty  
years' experience; full charge; all trades; good  
Draughtsman, measuring, and quantities. F. FISHER,  
Shipley, Sussex.

**A COMPETENT and Practical CLERK OF**  
**WORKS** requires position where skill, energy, ex-  
perience, and up-to-date methods can be usefully em-  
ployed. Large jobs, town or country. Town preferred.  
307 Beckenham Road, Beckenham, Kent.

**THOROUGHLY Qualified BOOK-KEEPER**  
desires engagement. Preparation of accounts and  
trial balance for auditors. Not afraid of work. Good  
references as to character and ability. Box 303, Office  
of "The Architect."

### ELDERLY MAN, Qualified ACCOUNTANT

seeks situation Company, Export Merchants, or  
general office work. Only moderate wages asked. E. A.  
WHITTEMORE, 10 Mayfield Road, Dalston, E. 8.

**B. M. SANYAL, Architect, etc., of Benares**  
City, India, desires to get into touch with British  
Manufacturers and Merchants with Building Trade  
Specialities, with a view to representing them. Address  
B. M. SANYAL, Architect, Benares City, India.

### PROUT'S CONTINENTAL SKETCHES.

Proofs on thick plate paper in handsome portfolio,  
cloth, gilt lettered, size 21 inches by 15 inches, price  
42s. net.

The work consists of 75 plates, and was originally  
published at 30 guineas. The plates are the full size  
of Prout's drawings, and are an exact reproduction by  
the PERMANENT INK PHOTO PROCESS.

Mr. Ruskin, author of "The Seven Lamps of Archi-  
tecture," &c., &c., referring to these drawings, says:—  
"Prout drew every lovely street in Europe."

"Prout ransacked every corner of France, Germany,  
the Netherlands, and Italy."

"I have," says Mr. Ruskin, "both in my earlier  
books and in my lectures at Oxford, spoken of the  
sketches of Prout with reverence and enthusiasm."

"Numerous as have been his imitators, extended as  
his influence, there has yet appeared nothing at all to  
equal them; there is no stone drawing, no vitality of  
architecture, like Prout's."

"The sharpest photograph is not half so natural."

May be obtained from  
GILBERT WOOD & CO., LTD.,  
8-11 Imperial Buildings, Ludgate Circus, London,  
E.C. 4.

## ARCHITECTS' BENEVOLENT SOCIETY.

FOUNDED 1850.

Subscriptions to enable the Council to carry  
on the work efficiently are urgently needed.

It is hoped that every architect in active  
practice will become a subscriber.

Unpaid subscriptions for the current year  
will be gratefully received.

W. HILTON NASH, Hon. Treasurer.  
Sir CHARLES A. NICHOLSON, Bart.,  
Hon. Secretary.  
9 Conduit Street, W.



**MEMORIALS**

WROUGHT RELIEF AND ENGRAVED  
BRONZE AND BRASS TABLETS  
**CHURCH METALWORK**  
IN GOLD, SILVER, BRONZE AND BRASS.  
List R 23 for Memorials, list R 24 for Metal Work  
on application.

**F. OSBORNE & CO. LTD.,**  
27 EASTCASTLE ST., LONDON, W.1

**MEMORIALS**

IN BRONZE, BRASS OR OAK.  
ENGRAVED OR RELIEF.

Architects' Drawings Accurately Followed.  
Designs and Estimates on receipt of particulars.

**THOMAS WEBB & CO.,**  
Craftsmen in Metal, Oak & Glass. Sign Specialists.  
The Carra, Wellington Street,  
Tel.: 2277. STOCKPORT.

**MARBLE**

THE ROUGH MATERIAL SUPPLIED,  
OR DRESSED OR TIVE WORK COMPLETE  
TO ARCHITECTS' SPECIFICATIONS.  
MERCHANTS, MANUFACTURERS and  
CRAFTSMEN.

Over 1,000 Tons of Marble in Stock.  
**PERCY C. WEBB, Limited,**  
12a ST. KATHARINE DOCK,  
LONDON, E. 1.

**LETTERING**

Pure Roman or other artistic lettering  
for Memorials, Signs, &c. Painted  
Signs for Exhibitions, old Village  
Inns, &c., &c. Apply:—

**E. C. Northfield & Sons**  
LIMITED,

Builders and Decorators,  
Lettering and Sign Specialists,  
6 Castle Street, CAMBRIDGE.  
Telephone: 190.

**SPECIAL NOTICE to  
BUILDING CONTRACTORS.**

Save on cartage costs, by having girders, joists, window  
frames, struts, beams, etc., consigned to Penryn Wharf,  
which is a stone's throw from the centre of the City. Your  
lighter can deposit all building materials, etc., at this  
Wharf, which has every modern facility for handling  
quickly and safely bulky goods, and we can deliver to all  
parts of London on terms that will make all the difference  
between a paying contract and the reverse.

WE ARE FULLY EQUIPPED TO HANDLE YOUR  
LIGHTERAGE BUSINESS IN A SPEEDY AND  
EFFICIENT MANNER. BOTH TIME AND CARTAGE  
EXPENSES ARE SAVED—GET IN TOUCH RIGHT  
NOW WITH THE PROPRIETORS OF THIS UP-TO-  
DATE WHARF, WHO WILL BE PLEASED TO SEND  
YOU FULL PARTICULARS.

**French Paperstock Co. Ltd.** (Lighterage  
Dept.),  
24-30 Bermondsey Wall, London, S.E.

**NEW LIGHT CARS**

HUMBER,  
STANDARD,  
SWIFT, etc.,

**£100 cash**

Balance by instalments  
to suit your convenience.

LORRIES ALSO SUPPLIED.

**SAUNDERS GARAGE**  
GOLDERS GREEN, N.W. 11.

**NOTICE.****To Advertisers and Advertising Agents**

In consequence of the necessity of closing  
pages for press on Wednesday, all fresh copy  
where proofs are required must reach this  
office by the Friday preceding publication  
where no proof is required by Tuesday  
5 o'clock.

**APPOINTMENT WANTED.**

APPOINTMENT desired by gentleman as  
ESTATE AGENT, with practical knowledge in the  
various branches. Entire management for 10 years of  
2,500 acres, and farmed the Home Farm of over 400  
acres. Pedigree stock and Shire horses, and breeding  
of heavy-weight hunters. Selling stock and corn.  
Considered first-class judge of melting barley. Game  
rearing and general management of large number of  
farm hands, keepers, etc. Used to keeping estate  
accounts. At outbreak of war went out to France  
with his regiment, second in command, and served  
through the war. Anxious now for appointment.  
Public School and University education. Married; no  
children. Highest references. Box 299, Office of "The  
Architect."

**OFFICES TO LET.**

LONDON OFFICE ACCOMMODATION,  
with telephone, telegraphic address, and type-  
writer, offered. Good central City of London address.  
£50 per annum and all out-of-pocket charges. Full  
particulars and references exchanged on receipt of  
application. Box 200, Office of "The Architect."

**AGENCIES.**

AGENCY WANTED by Resident Firm,  
Newcastle-on-Tyne and North-Eastern district,  
first-class Building Materials or Specialities, for Archi-  
tects, Surveyors, etc. Write Box 188, Office of "The  
Architect."

AGENCY WANTED for FIREBRICKS,  
GLAZED BRICKS, SINKS, LAVATORIES, etc.  
16 years' experience as London Manager. Good con-  
nection amongst Builders' Merchants, Contractors, and  
Architects. Would be willing to open office in the  
City. Write HAROLD E. PARKINSON, Bush Lodge,  
Vallance Road, Wood Green, N. 22.

**BUILDING SITES.**

FREEHOLD OFFICE BUILDING SITE  
in W.C. district for Sale, in first-class professional  
position. Frontage 23 feet. Area 1,824 feet super.  
Price £5 per foot super. Particulars of Messrs.  
HARMAN BROS., Hazlitt House, 43-46 Southampton  
Buildings, Chancery Lane, London, W.C. 2.

**To Architects and Builders  
in difficulty for  
TRANSPORT OF GOODS.**

FOR CHEAP HAULAGE  
BUY

**FOSTER'S COMPOUND STEAM WAGONS**  
and TRACTORS and TRAILERS.

Makers:—

**WILLIAM FOSTER & CO. LTD.,**  
ORIGINAL TANK WORKS, LINCOLN.

**WANTED.**

WANTED, an Electric-driven CRANE, to  
lift 10-12 tons; 42 ft. 0 in. span; 3 phase,  
460 volts; with or without Motor. Box 404, Office  
of "The Architect."

SUITE of 3 Large or 4 Smaller ROOMS  
required, in July of August, on first floor of build-  
ing situated on main thoroughfare anywhere between  
Mansion House Station and Waterloo Bridge, on seven  
or fourteen years' lease. Give fullest particulars to  
"AGENT," Box 199, Office of "The Architect."

**TO BE LET.**

TO LET for conversion into Bank, large shop  
or such like, MAGNIFICENT CORNER SITE,  
main business thoroughfare Swansea. Frontages 102  
by 45 feet. VYE-PARMINTER, Sketty, Swansea.

**MISCELLANEOUS.**

THE BENNETT COLLEGE (Est. 20 years)  
coach by post for all the leading Institutions  
examinations in Building, Architecture, Ferro-concrete,  
and Structural Engineering, Sanitation, Surveying and  
Leveling, Draughtsmanship, etc. Every course is con-  
ducted by fully-qualified and practical Tutors. Indi-  
vidual attention. Low fees. Over 6,000 unsolicited  
testimonials. Send 2d. stamp for prospectus of the  
subject which interests you (you assume no obligation  
by so doing), to the London Representative, Mr.  
FREDERIC JACKSON, 2 Queen's Mead Road, Bromley,  
Kent.

**ARCHITECT'S CERTIFICATE FORM.**

Books of 100 each, including 16 final oblong Foolscap  
4 bound.

9s., post free.

Cash with order to Publishers.

**W. H. SMITH & SONS, CIRENCESTER.**

HOUSING SCHEMES. — SANATORIUM  
IRON AIR-BRICK. Rainproof. All sizes.  
COWELLS, 58 Denmark Road, Southport.

WANTED Carpentry and Joinery alterations  
and Repairs. H. U. BECKWITH & SON, 98 Dray-  
cott Avenue, Chelsea, S.W. 3.

**ARBOLITE.**

The Standard Wood Preservative and Stain.  
"Second to none." Defies dry rot, fungoid growth,  
etc. Preserves and beautifies. Inexpensive, efficient,  
durable. Price, etc., from the Manufacturers, CAMPBELL,  
CURRIE & CO., 72 Waterloo Street, Glasgow. Tele-  
grams: "Arboleum, Glasgow."

MESSRS. W. P. BUTTERFIELD, LTD.,  
GALVANISED TANK AND CISTERN  
MANUFACTURERS,  
SHIPLEY, YORKS.

announce they have reduced the price of their special  
Dustbins to 17s. 6d. and 20s. each respectively (whole-  
sale).

MANY HUNDREDS of POUNDS are lost  
annually, both in costs incurred and loss of trade  
owing to the want of attention to plant, machinery,  
and buildings. All this might be so easily obviated  
by regular inspection. An Architect and Engineer,  
with many years' experience, who is prepared to under-  
take this work on a system of a regular fee, and who  
can give the highest references as to ability and in-  
tegrity, is relinquishing a regular post for the purpose  
of starting for himself in such a practice, and will be  
glad to get in touch with any firms who might be  
desirous of such assistance. Replies in first instance to  
Box 175, Office of "The Architect."

SIMPLE CHEAP SYSTEM of BUILDING  
COTTAGES and DWELLINGS of CONCRETE  
SLABS. Patent. Single or hollow walls. Estimated  
less than half the time of any other method and lower  
cost. Open for licences to Contractors and Builders for  
county or district. Apply J. D. ROOTS & Co., 231  
strand, W.C. 2.

BIRDS' Baths, Sundials, Vases, Fountains,  
Figures, Well Heads, etc. Catalogue (No. 16)  
free. MOORTON, 65 Pearl Road, Walthamstow.

ARCHITECTURAL BOOKS AT  
TREMENDOUS REDUCTIONS.—New Books at  
Discount Prices. Books on Architecture, Surveying,  
Estimating, Building Construction and all other subjects  
supplied or sent on approval; state wants; send for  
lists; books purchased.—W. & G. FOYLE, 121-123  
Charing Cross Road, W.C.

**Mr. HAROLD OAKLEY**

Prepares Perspectives for Architects.

14 Henrietta St., Covent Garden. Tel.:  
275 Gerrard.

R.I.B.A. Exams. and A.A. Entrance Exam.  
BOND & COCKRILL (late Bond & Batley).  
Mr. A. G. Bond, D.A., A.R.I.B.A. Mr. G. Scott Cockrill,  
A.R.I.B.A. Courses by Correspondence, Personally, and  
in Studio.

215 GOWER STREET, LONDON, W.C. 2.  
Telephone: Museum 5661.

**MACDONALD & SON**

Prepare Perspectives for Architects.

51 Mandrake Road, Upper Tooting, S.W. 17.  
Tel.: Battersea 1602.

**TO ARCHITECTS & BUILDERS.**

Wanted TRACERY, CHURCH WORK or HIGH-CLASS  
JOINERY. Best workmanship guaranteed. No machinery.

DAVID HANCOX, Deddington, Oxon.

**PATENTS.**

PATENTS.—Advice and Handbook Free.  
THE KING'S PATENT AGENCY, LTD., 146A Queen Vic-  
toria Street, London, E.C. 4. 35 years' references.  
(Director, B. T. King, Registered Patent Agent.)



## AUCTIONS.



BY DIRECTION OF THE DISPOSAL BOARD.  
To Councils, Builders, Housing Committees, Gas, Water  
and Electrical Companies, Engineers, Ship and Engine  
Builders, Farmers, and Others.  
SALE BY AUCTION OF  
a large quantity of

## MACHINERY, STORES, ETC.

(lying at H.M. Dockyard), the Ordnance Depot,  
Pembroke Dock, and at Milford Haven),

AT H.M. DOCKYARD, PEMBROKE DOCK,  
ON TUESDAY AND WEDNESDAY, JUNE 28 and 29,  
at 12 o'clock each day,

comprising:  
2 I.C. Engines, 1,200 B.H.P., 12-cylinder, new; 2 of  
240 B.H.P., 8 cylinder, new; 1 Main Propelling Steam  
Engine, 4-cylinder, 2,500 I.H.P. Condensers, Propeller  
Shafting, Thrust Blocks, E.R., etc.; Telegraphs,  
Indicators, Fan Engines, Evaporating Plant, Steering  
Gear, Electric Light Engines, Steering Engines, Electric  
Generating Set, 2 Pairs Motors, 600-B.H.P. Motor-  
driven Ventilation Fans, Electric Cranes, Milling  
Machines, Lathes, Winches; Light Rails and 24 Bogies,  
for 3,000 Treble Fire Bars, 2 ft. 3 in. long; Pump  
Gear, Lanterns, Auto Lamps, Carbons, Electric Signaling  
Lamps, Electric Cable, Portable Telephone Sets;  
8 Steel Sighting Towers, 35 ft. high, dismantled;  
260 Dan Buoys, Iron Tanks, Life Rafts, Old Electric  
Cable, Canvas, etc.; Bags, Old Bunting, Shovels, Glass  
Floats, Barricoes, Torpedo Nets, Podmore and Kalanite  
Containers.

Also on June 29, at about 4 o'clock,  
AT THE SOUTH TRANSPORT DEPOT,  
PEMBROKE DOCK,

Huts and Workshops, timber built throughout, com-  
prising: Stable, about 25 ft. by 17 ft.; 2 Workshops,  
20 ft. by 14 ft.; 2 Sectional Huts, 61 ft. by 16 ft.;  
and 1 Non-sectional, 61 ft. by 21 ft.

And on JUNE 30, at 11 o'clock,  
AT THE PEMBROKE AIRSHIP STATION,  
MILTON.

(near Pembroke Dock and Tenby),  
the whole of the HUTS, BUILDINGS, AIRSHIP SHEDS  
erected thereon, as also MACHINERY, PLANT, and  
comprising:

A Steel-framed AIRSHIP SHED, 300 ft. long by 100 ft.  
wide by 70 ft. high, covered with painted corrugated  
iron, with sliding steel-framed doors in two leaves at  
each end, and annexes both sides, the full length of  
the building, with hot-water heating apparatus, and  
electric lighting. 8 Steel-framed Wind Screens, 200 ft.  
long by 50 ft. high; 4 are with Steel "A" Frames,  
22 ft. wide at base, with steel bracing, etc., covered  
with painted corrugated iron, and 4 with Steel "A"  
frames, 19 ft. at base, covered with galvanised cor-  
rugated iron; 2 of the latter have return ends, 80 ft.  
long with frames. Timber framed and covered with  
corrugated iron, 3 No. 71 ft. by 21 ft.; 2 No. 61 ft.  
by 23 ft.; others, 56 ft. by 33 ft., 53 ft. by 21 ft.,  
43 ft. by 21 ft., 41 ft. by 31 ft., 41 ft. by 21 ft.,  
etc. Timber framed and covered with corrugated  
asbestos, 5 No. 61 ft. by 21 ft. Timber built through-  
out, 2 No. 61 ft. by 16 ft.; others, 45 ft. by 16 ft.,  
etc. Brick-built Buildings with various roofs, Hot-  
water Boilers with cylinders, Solar Heating Apparatus,  
Ranges (Cooking), Workshop Benches, 2 Pressed Steel  
Tanks (about 4,800 galls. each), 1 Timber-built Tank  
(7,400 galls.), Gasholder, 20,000 c. ft., and Tank,  
2 Wireless Telegraph Poles, about 150 ft. high. A  
60-ft. Flagstaff, Electrical Stores, Air Compressor, Electric  
Generating Sets, 10 and 40 kw. Light Railway  
Track, 2 Motors, 24 and 38 H.P. Cylinders and Fittings  
for H.P. gas storage.

The lots may be viewed six days prior to the sale,  
and also on the mornings of the sale, on production of  
catalogue, which may be obtained from the Auctioneers,  
Messrs.

BOWLING BROS.,  
17 Commercial Road, Pembroke Dock. Tel. No. 27.

FREEMOLD FACTORY LAND AT  
HAYES, MIDDLESEX.

WEATHERALL & GREEN will SELL by  
AUCTION, at the London Auction Mart, on  
TUESDAY, JULY 12, 1921, at 2.30 p.m., 17 acres  
of FREEMOLD LAND, about one mile from the station  
on the G.W. Rly., with possession. It has a long canal  
frontage, with two docks, and a siding to the G.W.  
Railway skirts two boundaries. The land is very level,  
and eminently suitable for erection of factory, ware-  
houses, etc.

Solicitors, Messrs. Pollock & Co., 6 Lincoln's Inn  
Fields, W.C. 2.

Particulars and plans of the Auctioneers, Weatherall  
& Green, 22 Chancery Lane, W.C. 2.

BUSINESSES & PROPERTY  
FOR SALE.

FOR SALE.—In the County of Essex.—Old-  
established BUILDER'S AND CONTRACTOR'S  
BUSINESS, with spacious residence adjoining work-  
shops. Contracts in hand. First-class connection  
among gentry. Big yearly turnover. Chartered  
Accountant's figures for past five years. Full particulars  
from JEFFERIES ADVERTISING SERVICE, Colchester.

## REINFORCED CONCRETE CALCULATIONS

In a Nutshell, with 1909 L.C.C. Regulations

By J. T. PIGGOTT. Being a Series of simple, practical  
rules for obtaining the dimensions and main reinforce-  
ment of beams and slabs for all classes of Reinforced  
Concrete Structures, including a table of square columns  
with fixed ends; Formulae for Depth of Foundations,  
Bending Moment, Shear and Deflection, Diagrams and For-  
mulae and data from which the material can be priced.

3/6 net. Postage 4d., abroad 7d.

E. & F. N. SPON, Ltd., 57 Haymarket, LONDON.

## TENDERS.



TO BUILDERS.

THE Commissioners of His Majesty's Works,  
etc., are prepared to receive Tenders, before  
11 a.m. on Monday, July 4, 1921, for the ERECTION  
of a NEW SORTING OFFICE at OLDHAM.

Drawings, Specification, and a copy of the Conditions  
and Form of Contract may be seen on application to the  
District Surveyor, H.M. Office of Works, New  
Bridge Street, Manchester.

Bills of Quantities and Forms of Tender may be  
obtained from the Contracts Branch, H.M. Office of  
Works, King Charles Street, London, S.W. 1, on pay-  
ment of one guinea (cheques payable to the Secretary,  
H.M. Office of Works). The sums so paid will be  
returned to those persons who send in Tenders in  
conformity with the conditions.

METROPOLITAN BOROUGH OF HAMMERSMITH.  
ERECTION OF 20 TENEMENTS.

THE Hammersmith Council invite Tenders  
for the erection of a Block of 20 Tenements on  
their Wormholt Housing Estate.

Applications for Bills of Quantities, accompanied by  
cheque for £2 2s. (which will be returned on receipt  
of a bona-fide Tender), to be made to the undersigned  
not later than June 24. Tenders, in envelopes pro-  
vided, to be delivered to me not later than noon,  
July 3.

The Council do not bind themselves to accept the  
lowest or any Tender.

LESLIE GORDON, Town Clerk.  
Town Hall, Hammersmith, W. 6.  
June 15, 1921.

THE ROYAL PORTSMOUTH HOSPITAL.  
WAR MEMORIAL.

THE Building Sub-Committee invite separate

Tenders for the following works, viz.:  
1. Pulling down old Buildings and erecting a new  
Archway and Entrance from Commercial Road.  
2. For carrying out extensive Alterations and  
Additions to the Administrative Buildings.

3. For a New Corridor and small Isolation Ward.  
The Drawings and Specifications may be inspected  
at the Offices of the Architect, Mr. A. E. Cogswell,  
25 Prudential Buildings, Portsmouth, and copies of  
the Bills of Quantities, etc., obtained on and after  
June 9, 1921, on payment of £2 2s., which sum will  
be refunded on receipt of a bona-fide Tender.

Sealed Tenders, in the envelopes to be supplied,  
addressed to the Chairman of the Building Committee,  
must be delivered at the Hospital not later than noon  
on Monday, June 27, 1921.

No pledge is given to accept the lowest or any  
Tender.

B. WAGSTAFF,  
Secretary.

THE Urban District Council of Surbiton  
invite TENDERS for the Erection of 48 HOUSES—  
24 at Tolworth and 24 at Surbiton Hill, forming part  
of their Housing Scheme.

For the purpose of Tendering, the Houses have been  
arranged in groups, each group containing from four  
to eight Houses, and Tenders for erecting all or any  
one or more of such groups, in sealed envelopes, en-  
dorsed "Tenders for Housing Scheme," and addressed to  
the undersigned, must be delivered at the Council  
Offices not later than Monday, June 27, 1921, at  
10 a.m.

Plans can be inspected and copies of the Bills of  
Quantities obtained at the Council Offices, at any time  
after 11 a.m. on Monday, the 13th June, upon pay-  
ment of a deposit of One Guinea for each set (which  
will be refunded in the case of each bona-fide Tender  
received).

The Contract will be in the form prescribed by the  
Ministry of Health, and will contain a clause providing  
for an adjustment of the contract price to meet increases  
(or decreases) in the cost of materials and labour which  
may arise after Tenders are received and during the  
progress of the works.

The lowest or any Tender will not necessarily be  
accepted.

FREDERICK W. WOOD,  
Clerk to the Council.

Council Offices,  
Ewell Road, Surbiton.  
June 1, 1921.

Telephones—31 Maidstone 4125 Gerrard  
4029 Mayfair

G. E. WALLIS & SONS, Ltd.  
BROADMEAD WORKS,  
MAIDSTONE.

London Office—Broadmead House, Pantons Street,  
HAYMARKET, S.W.

London Works—3-5 Kenrick Place, Baker St., W. 1.

Builders & Contractors.  
ESTABLISHED 1860.

Most Extensive Works in the South of England,  
covering Five Acres, with Wharves on the River  
Medway, and Sidings on to the S.E. and C.R.

Complete and up-to-date Plant for the  
Manufacture of High-class Joinery.

Shop Fitting and Decorating a Speciality.

MASONRY CONTRACTORS.

Complete Electrical Equipment of  
Sawing and Moulding Machines.

Manufacturers of an Improved  
Concrete Stone.

Also of Patent Armoured Tubular Fire-  
proof Floors, &c.

Licensed Contractors for the Hennibique  
System of Ferro-Concrete Construction.

TO ARCHITECTS  
AND SURVEYORS.

In connection with the Ministry of Labour and  
the difficulty of finding employment for those who  
risked their all for their country, we make a  
special appeal to our readers to offer appointments  
to the following men. These men sacrificed their  
future, and we appeal confidently to you to relieve  
their fear of unemployment.

The Proprietors of "The Architect."

Demobilised Officers and Men  
Wanting Situations.

ALL REPLIES to advertisements under this  
heading must be addressed to District Director,  
3 and 4 Clement's Inn, Strand, W.C. 2, quoting  
number, name of this Paper, and date of issue.

As Clerk of Works. Age 59. Married. Experienced  
as Master Builder, all branches. 267,742

As Agent of Steward, Architect and Surveyor. Age  
67. Married. Major. Educated Wellington. 34  
years' experience as Architect and Surveyor on  
own account. 43,591

Architectural Draughtsman. Age 25. Single. Captain.  
Apprentice 1911-14. Good general mechanical  
knowledge. 885/21

Post in Auctioneer's and Estate Agent's Office. Age  
32. Single. Captain. Passed F.S.I. examination.  
Experience as Assistant Valuer, Land Valuation  
for rating purposes. Would prefer post in S. Wales.  
44,945

Estate Manager or Traveller. Age 37. Married.  
A.R.S.I. Experience as Architect and Surveyor, in  
business on own account since 1910. Considerable  
experience of property management. 2268/21

Sanitary Inspector or Inspector of Nuisances. Age 32.  
Married. Certificate S.I.E.E., Battersea Polytechnic  
Certificate for practical sanitary science. 1649/21

Land Agent or Manager or Farm Estate Surveyor  
or Railway Maintenance. Age 38. Single. Lieut.  
P.A.S.I. Served three years' articles as Land  
Agent and Surveyor. Two years' railway engineer-  
ing experience in Canada. Five years in Public  
Works Department, Africa. 1633/21

Resident Agent on Large Estate or Agricultural Appoint-  
ment. Age 30. Married. Lieut. Ten years' ex-  
perience as Assistant to Agricultural Auctioneers  
and Surveyors, Valuers, Surveyors and Estate  
Agents. 88,846

Auctioneer and Valuer. Age 41. Married. Lieut.  
Fluent French. Eighteen years' experience in Auc-  
tioneering and Estate work. Five years in business  
on own account as dealer in antiques. 42,160

Junior Mechanical Draughtsman. Age 24. Single.  
Knowledge French and Latin. 18 months at  
Brighton Technical College. 10 months' ex-  
perience as Junior Draughtsman. 14,206

Architect and Surveyor. Age 48. Married. Captain.  
30 years' experience as above. 75,894

Architectural or Surveying Assistant. Age 28. Single.  
30 years' experience as Assistant Building Sur-  
veyor and Draughtsman. 62,286

Assistant to Building Contractor or Quantity Surveyor.  
Age 23. Married. Lieut. War service, four years.  
Three years' experience as above. Good general  
knowledge of Quantity Surveyor's office. 45,730

For Architectural post. Age 34. Single. Lieut.  
Served six years articles. Qualified Architect.  
Suitable for Managerial post in large Architectural  
firm. 90,437

Superintendent of Roads. Age 33. Married. Eleven  
years' experience as Assistant Departmental  
Manager and Road Superintendent for Flooring and  
Paving Company. Thorough knowledge wood-  
block flooring. Willing to go abroad. 3062/21

Clerk of Works. Age 53. Married. Two years' ex-  
perience in U.S.A. as Mason. Fifteen years' ex-  
perience as Foreman in building trade. 100,577

Surveyor, Valuer, and Manager of Property. Age 50.  
Married. Captain. 33 years' experience in dealing  
with property, including 20 years practising on  
own account as House and Estate Agent, Surveyor  
and Valuer. 358/21

As General Assistant and Valuer in Surveyor's, Auc-  
tioneer's and Estate Agent's Office. Age 23.  
Single. 2nd Lieut. Passed Intermediate Sur-  
veyors' (Valuation Sub-section). 3 years' practical  
experience. 8,619

As Agent or Manager for Agricultural Estate. Age 41.  
Married. Lieut. F.S.I. Thorough knowledge  
agriculture, farm valuation, stock markets, auc-  
tions, negotiations, surveying, and estate develop-  
ment. 8,272

Architectural. Second Lieut. Age 47. Married. War  
service, eight months. Educated Merchant  
Tailors' School. F.R.I.B.A. 30 years' architec-  
tural experience, with special knowledge of tropical  
requirements. 40,064

Architect or Surveyor. Sergeant. Age 34. Married.  
War service, five years. Educated Public School.  
Five years' sound architectural experience. 4463/21

Architect's Assistant. Age 28. Theoretical and  
practical experience. Two years' studies and  
seven years' practical experience. DS/33,772

Draughtsman (Architectural). Age 26 years. Single.  
War service five years. Educated Secondary School.  
Three and a half years articulated with London firm  
of Architects. 45,167

Architectural Assistant. Age 36. Married. Sergt.  
War service three years. French (fluent). Seven-  
teen years' experience perspectives, reinforced con-  
crete, specifications, etc. R.A. Exhibition. 22,808

Assistant Architect and Surveyor. Age 37. Single.  
War service two and a half years. Degrees M.A.A.  
Articled four years. Own practice seven years.  
Sound knowledge of inventive work and patents.  
4147/21

Architectural. Age 41. Married. Lieut. War service  
six years. Degrees, etc., M.S.A., Q.S.A. Life  
experience, including 10 years' private practice.  
660/21

Architectural Draughtsman. Age 35. Married.  
Lieut. War service five years. Degrees  
A.R.I.B.A. Two years Clerk of Works, two  
years Structure Steel Engineer, two years Manager  
Architect's Branch Office, two years Leading  
Draughtsman and Factory Architects and Sur-  
veyors 1527

For remainder of Small Advertisements  
see pp. 31 and 32.



3

**GOOD THINGS**

All Architects should specify during 1921.

**“MURALINE”** THE  
PERFECT WATER PAINT

SANITARY, ARTISTIC &amp; DURABLE.

In 30 Shades. Sold in a Dry Powder.

In 2½-lb., 5-lb. and 7-lb. Packets and in Kegs.

**“MURAPRIME”** AN EFFECTIVE  
PRIMING FOR OLD &  
NEW POROUS WALLS

A Priming for “Muraline” and all washable Water Paints, stops suction on Porous Plaster Walls, and also ensures the fixing of Colours on Wall-paper prior to Distempering.

**“COVERINE”** THE CELEBRATED  
WHITE UNDERCOATING

One Coat transforms Black into White. It can be Second Coated in a few hours. Sold in 7-lb. Tins and in Bulk.

FOR FULL PARTICULARS OF FURTHER PAINTS AND SPECIALITIES APPLY

**WALTER CARSON & SONS**

Grove Works : BATTERSEA, LONDON, S.W. 11.

Telegrams : “Carsons, Battsquare, London.” Telephone : Battersea 1630 (2 lines).





**Roofing the World**

*Partners in Progressive Building Construction*

# EVERITE

## ASBESTOS-CEMENT

### CORRUGATED SHEETS

#### **ASBESTILITE**

is the same material in  
**FLAT SHEETS,**  
**SLATES and TILES**

#### **FIXING SERVICE**

We have a large staff of expert fixers, whose service and advice are at your disposal. It will pay you to take advantage of our **SPECIAL FIXING DEPARTMENT.**

represent the highest attainment in building progress. They are infinitely superior to corrugated iron, roofing felt, etc. Never require painting. Absolutely fireproof.

The depth of corrugation gives **EVERITE CORRUGATED SHEETING** a sturdy strength which is remarkable, and in this respect it is pre-eminent.

**ASBESTILITE ROOFING TILES** are better than the finest roofing slate ever quarried. They can be obtained in pleasing shades which harmonise with the landscape. The colours are indelible, impregnating the whole substance.

#### **EVERITE RAINWATER GOODS**

(Gutters, Pipes, Connections) have jumped into immediate popularity, as evidenced by the large influx of repeat orders and the ever-increasing demand. Approved by the Ministry of Health for use in connection with State-Aided Housing Schemes.

*BRITISH made of BRITISH EMPIRE materials, by the pioneers and world's largest manufacturers of Asbestos-Cement Corrugated Sheeting.*

Illustrated Catalogue, Samples and Quotations from

**British Everite & Asbestilite Works, Ltd.**  
**PETER STREET, MANCHESTER**

London Office:  
77 & 79 CANNON STREET,  
LONDON, E.C. 4.

Telephone: 7790 CITY.  
Telegrams: EVERITE, MANCHESTER.



**"NOT FOR AN AGE**

**BUT FOR ALL TIME"**

# Flavel's "Leamington" Mantel Registers

(Registered Designs)



No. 118

Fire ... 10in.  
Width ... 1ft. 6in.  
Height ... 3ft. 2in.  
Shelf ... 1ft. 8½in. overall

Net Price for State

Aided Houses.

£1 5 3



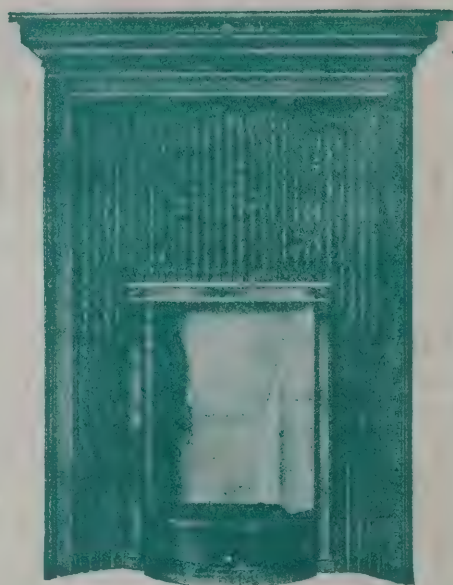
No. 124

Fire ... 12in.  
Width ... 2ft. 0in.  
Height ... 3ft. 6in.  
Shelf ... 2ft. 5in. overall

Net Price for State

Aided Houses.

£1 18 7



No. 130

Fire ... 14in.  
Width ... 2ft. 6in.  
Height ... 3ft. 10in.  
Shelf ... 2ft. 11in. overall

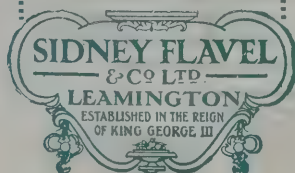
Net Price for State

Aided Houses.

£3 14 3

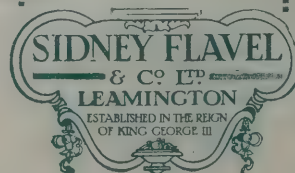
Flavel's  
Kitcheners  
Portable Stoves  
Parlour  
Oven Grate  
Interior Fires  
Mantel Registers

Should be obtainable  
from any Ironmonger  
or Merchant through-  
out the Country.  
Full particulars from  
the Manufacturers—



Flavel's  
Gas Cookers  
" Fires  
" Radiators  
" Coppers  
" Grillers  
" Hot Plates

Should be obtainable  
from any Ironmonger  
or Merchant through-  
out the Country.  
Full particulars from  
the Manufacturers—



## G. MATTHEWS Ltd.

89 New Cavendish Street,  
LONDON, W. 1.

Telegrams:

"MOTMETAL WESDO LONDON."

Telephone:

2838 LANGHAM.





















UNIVERSITY OF ILLINOIS-URBANA



3 0112 076145389